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ABSTRACT

The document consists of six papers dealing with major national and international issues in the 20th century. The papers were presented at a 1977 Yale University conference convened for the purpose of providing factual information on important historical issues to high school classroom teachers and encouraging the teachers to develop curriculum based upon the information. Six invited participants (professors of history and deans at Yale University) presented the papers. The document is presented in two major sections. Section I discusses three domestic issues--change in the United States from 1960 to 1975, the green revolution in United States agriculture, and prospects for continued economic growth in the United States. Section II examines three international issues--relations between the United States and China, background of the South African crisis, and American-Soviet relations. For each issue, information is presented on background of the topic, time span, social characteristics, religious and cultural influences, political factors, and implications of the issue for students and for society in general. (DB)

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THE UNITED STATES' THIRD CENTURY:

ISSUES FOR THE SOCIAL STUDIES

A Conference held at Yale University, May 6, 1977

Sponsored by Yale University, Yale University History Department,

and the Yale-New Haven History Education Project

in co-operation with

The Connecticut State Department of Education

AND

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Welcome

Henry Chauncey, Jr.: Thank you very much. I admire those of you who can leave a lovely day like today and come into a science lecture hall where the curtains are drawn.

The quality of the people who are going to speak to you is extraordinary, and I thought I might, when I first saw the list, run a little tote sheet for you and tell you who's best, but as I looked at it I decided I'd better not because they are all very good. You'd better follow your own instincts as to who you listen to. They are all well worth hearing, I can promise you that.

One of my responsibilities as Secretary of the University is the relationship between Yale on the one hand and the State of Connecticut and the City of New Haven on the other. And obviously within that responsibility I must spend a good deal of time on the question of education and what Yale's role should be in public secondary and elementary education within this state as well as particularly of course within New Haven. This is a difficult problem, and the only thing I can say to you is that we have come to one conclusion: we have to be very, very careful about what role we play. It's terribly tempting for a national university to think that it knows all the answers. I think it's perfectly clear to me that we are not experts in the field in which you are experts. It is clear to me, however, that we have some resources which can be helpful to you as you go about your job. Therefore I think the real role that a university like Yale can play is the role of sharing its resources with those of you who know best how to use those resources in accomplishing your own tasks.

It is not a good idea for a private national university, in my opinion, to run laboratory schools thereby, I think, detracting from the quality of education in some of the other schools. It is a good idea, however, for us to bend over backwards to try to bring to your institutions our resources. I will say just a word about some of the things we are doing.

The History Education Project you know about. It is perhaps the most solid, the most vital program that we have going. We are also admitting to our undergraduate classrooms juniors and seniors from New Haven high schools, free of charge, based on the recommendation of counselors, and this seems to be very important not only from our point of view in recruiting some of these students to come to Yale, but also in setting a tone and the standard which these students then may decide to take back to their own schools. We have a summer semester here which is comparable to the normal fall or spring semester, and we have admitted some of the New Haven high school teachers to that semester free of charge. It really is an enrichment opportunity for those who want to pursue new work or further work in their own field.

We are trying to expand this sharing of resources, but we're going to do it slowly. I would welcome from any of you a letter or a note about ways in which you think this university can share its resources short of trying to become an expert in the field.

I welcome you here. I hope you have a good day. I hope that it will be productive for you and through that we will have done something for the state and for your particular organization. Thank you very much and welcome to Yale.

The Traumatic Years: 1960-1975

Reflections on Their Moral and Religious Impact

Professor Sydney E. Ahlstrom

Ladies and Gentlemen:

The presentation I am going to give today is an abridged version of an essay in which I have been asked to assess the impact of "The Traumatic Years" on the ethical and religious attitudes and practice in the United States. I am undecided as yet as to the title I shall use, but I have thought of using a New Yorker cartoon published during these years as a logo or headnote. It depicts a college student of the period, in the usual jeans and with a back-pack and guitar. He is addressing the woman tending the Travelers Aid desk in a railroad station: "Who am I and where am I going?". The question has many uses. Most obviously it expresses the uncertainties about self-hood and purpose that the period produced. In a large sense it could be taken as expressive of the befuddlement and ideological confusion into which the whole nation had fallen by the time the era came to an end.

As I approach the difficult task of making a plausible estimate of the ways in which American attitudes were changed during this stormy time I am reminded of Ralph Waldo Emerson's essay, "Fate," which was written in the early 1850's. He opened with a reference to several lecturers in Boston and New York who had been seeking to define "the spirit of the times;" but he was skeptical of the whole enterprise. "We are incompetent to solve the times," he said. "Our geometry cannot span the huge orbits of the prevailing ideas, behold their return and reconcile their opposition. We can only obey our own polarity." He then went on to speak of the Turks' sense of a pre-ordained destiny, of the Hindus' patient resignation, and "of our own Calvinists in New England in the last generation" who showed something of the same dignity. "They felt that the weight of the universe held them in their place." Providence, Emerson went on to say, "has a wild and rough and incalculable road to its end, and it is no use to try to whitewash its huge instrument in the clean white shirt and white neck cloth of the students of divinity."

Since I agree with him on the difficulty of discerning the signs of the times, I am somewhat intimidated by my present task. I must also express my misgivings about history, though it is my profession, and though I am prepared to argue that history is very nearly the ultimate discipline. The trouble is that we cannot really explain the present unless we have some hold on the whole past. Alice Rossi, for example, in a recent article on the question of children and divorce, emphasizes the necessity of taking account of even the biological past. She speaks of how women have a literally instinctive propensity to hold a baby for the first time in their left arm. And if we go on to the more important questions of historical significance, we meet the more astounding predicament that, as Teillard de Chardin put it: we can not evaluate the significance of anything unless or until we have beheld the terminus of the sequence of which it is a part. And one could, I suppose, carry this notion to its limit and suggest that only with a God's eye view of the last things could questions of significance be settled. Jonathan Edwards thought that was the case, so he studied the Bible for a clue. And it would seem that at least some of this rubbed off on Perry Miller, the great American historian of Puritanism. He said on one occasion after

receiving an award for his historical contribution, that one thing which distinguished him from the eminent historians of the 19th century was that he, unlike them, was able to entertain the proposition that America itself may in the long run not be any more significant than the ephemeral empire of the Parchians. Not being a prophet or a seer, I approach this present question with full awareness of its precarious status.

The first principle I would like to establish, however, is that in addressing the question of moral and religious change we must not narrow our concern to those who are members of churches and synagogues. I suppose all of us could agree that many of the most religious people we know have difficulties with such institutions. On the other hand, many who do attend are there out of habit and not seriously. Some of the most religious people I know are fiercely agnostic, but they cannot escape the religious issue. As a matter of fact nobody can. I sometimes wonder if there is anything religious about the phototropic aspirations of a sun-flower; but I have no doubts whatever when it comes to mentally competent human beings. I don't think I know of an historical figure whose religious life could not be described if personal documents were at hand. There have been excellent studies of George Washington and Benjamin Franklin for example. And I would have to say the same thing of students who come to my door. I remember one, for example who came in after reading Will Herberg's Protestant-Catholic-Jew (1955), in which the problem of the third generation immigrant is treated. Herberg invokes "Hansen Law" that what the second generation tries to forget the third generation tries to remember. But the student insisted passionately that he was a fourth generation Jew and that he wanted to forget the whole damn thing. But then after a while without any prompting from me, he went on in the most earnest and thoughtful way to tell of how he had reconstituted his understanding of his place in the world, the moral grounds of his behavior and his hopes for the future. And so it is: unbelief is displaced by belief. Everybody has some sense of priorities. Everybody has to explain his or her remorse or guilt. Everybody must define a relationship of some sort to the encompassing society or country. Indeed these affections or resentments toward a nation are among the most important of religious impulses, especially in the United States which more than any other country has been so sure that it was a special object of divine providence.

Paul Tillich insisted that the religious life is shaped by an individual's ultimate concern; and he also gave this view a social bearing very important for our present concern: "Religion is the substance of culture; culture is the form of religion." Perhaps it goes without saying that it is with somewhat similar views that I discuss the changing value structures that reshaped many of the aspirations of Americans during the Traumatic Years. These were times when the intentionality of many individuals was profoundly altered, and when immense amounts of energy flowed into new social channels. For lack of such interest many other movements and institutions expired. In the long run, therefore, I shall argue, the country itself was transformed. In fact, I sometimes see a parallel between this period's passionate efforts and that of the Puritan Party in England, which gradually defined its aspirations in a way that contributed heavily to the outbreak of a civil war and many permanent changes in the entire social order both in America as well as England. I shall argue today that something similar happened in America during these years, except that now it was the Puritan Ethic and the behavior it encouraged that was now being criticized or repudiated. But that is to get ahead of the story.

The Traumatic Years as defined for present purposes is that eventful period between the Election of President Kennedy and the collapse of the American war in Southeast Asia under President Ford. Other brackets could, of course, be justified. But in any case my approach to the problem of understanding this time of stress is to remind ourselves of America during the years of the Eisenhower administration, which provides an interesting starting point for comparisons with the America of the 1970's.

In retrospect it is an extraordinary time, a halcyon age of great expectations. Yet when college students read about it, they find themselves entering a world that seems as remote from the world they know as Tolkien's Lord of the Rings. One group at Yale even put on a musical review to call back what they remembered of Bobby socks, pleated skirts and sentimental love songs. They assigned Elvis and the Beatles to the succeeding era. To an age group of students who absorbed the ideological hymnody of Joan Baez and Bob Dylan as well as ear-splitting hard rock, the older period seemed sweet and superficial. Yet there are more serious things to consider.

The basic fact is that America in those years gained the father figure they wanted after the post-war readjustments had been made and when the President had brought an end to the Korean War. The dominant fact was the economic boom, fueled by unsatisfied demands that stretched back to the Great Depression. Industrial expansion and the reorganization of corporate structures were major features of change. Spurred by the commencement of the interstate highway system and by vast increases in white collar employment, suburban housing and shopping plazas blanketed the hills and valleys. Status anxieties became a major subject of sociological investigation. Two of the most widely read studies were David Riesman's Lonely Crowd with its famous goodbye to the internal gyroscope of Puritan vintage and the emergence of the other-directed suburbanite. Equally timely was William Whyte's The Organization Man with its warnings of the alienation that lay ahead in a culture dominated by ever more impersonal modes of conducting the nation's business. Most basic, perhaps, was the pace of economic growth and the expectations it created.

There were complementary developments in the religious sphere, some of which were analyzed in the work of Herberg mentioned above. He was to a large degree explaining the unexpected growth of membership in both Christian and Jewish contexts. He concluded that religious affiliation in the three separate "melting pots" arose chiefly as a mode of celebrating and identifying with the American Way of Life. But there were more evident reasons for the religious revival than that. Perhaps most important was the need for meaningful human relationships among the uprooted souls living in newly built suburban homes. Something of the depth of these needs is suggested by the enormous popularity of books of religious counsel. Rabbi Liebman's Peace of Mind and Harry Overstreet's The Mature Mind were among the most widely read. But the man who eclipsed all the others was undoubtedly Norman Vincent Peale, first with his Guide to Confident Living and then the record-breaking Power of Positive Thinking. It is possible that his heavy emphasis on getting ahead hurt as many people as it has helped. Yet the new kind of hunger for spiritual counsel clearly bespoke the emergence of the new trend in American religion that Philip Rieff describes in The Triumph of the Therapeutic (1966). The one work which deserves remembrance as a minor classic was Anne Morrow Lindbergh's Gift from the Sea, a meditation on the uses of solitude that quite directly addressed the predicament of married women, suggesting modes of thought and life that would overcome the Zerrissenheit, the torn-to-pieces-

hood of modern living. It was also a work that anticipated important aspects of the later women's movement.

Accompanying these various religious impulses was an unmistakable revival of patriotic piety. The President himself contributed to this trend with his famous insistence that no government could exist without faith, "and I don't care in what." Congress followed suit with bills that made IN GOD WE TRUST the national motto and added the words "under God" to the Pledge of Allegience. The American Legion sponsored a back to God hour and various eminent figures in the government sponsored prayer breakfasts. So pervasive was this "piety on the Potomac" that one observer speculated that even the women of easy virtue must be approaching their street clientele with the words "Abide with me; fast falls the eventide." But enough of this. The days of the Eisenhower Revival were superficially another Era of Good Feelings, especially on Wall Street. More profoundly it was a time that exposed the malaise of business civilization and many signs of those vague forms of resentiment which Max Scheler had diagnosed. The President himself showed his awareness that all was not in his well-known warning about the "military-industrial complex" that dominated the public scene. Even this brief glance at the decade, however, reminds us of how greatly America would change during the next fifteen years.

* * * * *

The election of a Roman Catholic as president in 1960 served by itself to mark an epoch in American religious and political history. For vast numbers of Protestants it was a shocking experience -- made worse very soon by the Supreme Court's decision on Bible reading and other religious ceremonies in the schools. Technically one could now speak of "post-Christian America." But the full impact of this change cannot be gauged without an account of the nearly contemporaneous election of Pope John XXIII. His revolution in a few years virtually extinguished the Counter-Reformation and opened a new age of ecumenism which in many ways instilled new self-confidence and assertiveness in the country's many ethnic communities. Sociologists were soon to speak of the passing of WASP dominance in American affairs. That was a premature judgment, but it is, nevertheless interesting, that in the very next national election the Republican Party (!) nominated a Jew and a Catholic to head its party ticket, without any nativist repercussions appearing during the whole electoral process. Barry Goldwater, to be sure, was an Epsicopalian but in other times such subtle distinctions had never prevented overt expressions of prejudice. During the Sixties one may observe the virtual passing of ethnophobia (as distinguished from racism) from the American scene.

In many other respects, however, the Kennedy years were not discontinuous with the recent past. The Cold War continued with increased armaments, the Bay of Pigs and the Missile Crisis. The economic situation remained strong. In his inaugural as in other speeches he maintained the nation's "civil religion." For these reasons some would see the Traumatic Years as beginning with the disenchantment which followed the assassination of this popular young president. Yet such questions are at best arbitrary, and it is more productive to consider the remarkable series of transformatory impulses that did emerge in this decade.

Opening most quietly was the environmental awakening which is often traced to Rachel Carson's Silent Spring (1962). Its impact from the first

was remarkable and before long many organizations and movements (some of them long moribund) became active. In certain limited areas legislation also came very early. Whereas the whole subject had almost been forgotten since the time of Theodore Roosevelt it now spread widely and affected the personal attitudes and behaviour of many. As the movement widened it also discovered many ramifications of the problem. Philosophically and theologically the question of the relationships of nature and human being became pertinent; and still more controversial were the questions asked about the implications of biblical teaching and the Puritan ethic for the ruthless kinds of exploitation which Americans had taken for granted or even lauded as virtuous. In succeeding years the broad question of energy and American waste became involved, and also the shameless percentage of the world's energy that America consumed. With the publications of the Club of Rome and many other specialists the question of planetary survival was debated, and also the theory of a steady-state economy. Finally in the energy crisis of 1973-74 the facts of life were brought home to everyone. Yet the historic climax did not come until 1977 when President Carter's address to the nation on his energy proposals marked the end of one era and the beginning of another, even if we are slow to recognize the fact.

Moving on a similar time-table was, what for lack of a better name, can be called the sexual revolution. Serving as an announcement of its emergence was Betty Friedan's The Feminine Mystique of 1963. Her primary interest was the new feminism and the question of equality, though here again one must say that her book was but a chip on the rising tide of revisionism on sexual and sexist issues that was engulfing the entire culture. Questions were being raised on matters of birth-control, contraception, pornography, homosexuality, abortion and many sub-issues. Nearly all of the churches including the Vatican appointed commissions, and nearly every level of government from municipalities to the Supreme Court was changing the related laws. The Equal Right Amendment has not as yet been passed, but in more important ways the laws have been bypassed by actual shifts in popular mores. In one of the most controversial of all moves, most of the churches have begun ordaining women to the Christian ministry, while those that have not, including the Roman Catholic, are being forced to change many traditional practices. Even so there have been huge demissions of nuns and priests from their religious vocations. Underlying all of this, moreover, are a set of fundamental questions that are intrinsically religious. And when they are seriously considered, they, like ecological issues, precipitate serious questions about the social implications of the entire Biblical tradition, Christian and Jewish.

Almost everyone, men and women alike, are forced to consider the ways in which the Biblical or Judeo-Christian tradition as a whole conduces to sexism just as it does to the exploitation of nature. Agitation by the various branches of the women's movement still continues, but nobody could deny that vast shift in attitudes has already taken place, including a countermovement by those who are threatened by the new outlook.

Unquestionably one of the strong stimulants for the women's movement was the end of the civil rights movement and the emergence of a militant demand for Black Power in June 1966. By the time of Martin Luther King's assassination in 1968, it was clear that the old, interracial civil rights movement had been transformed. "We shall overcome... Black and White together" was replaced by a "Black Consciousness" movement which drastically altered the agenda of white liberal gradualism. A period of polarization ensued. Half

subconsciously Blacks began to act on the principle that if they were not cut into the American Pie, the pie itself would be rendered unpalatable. And this new militancy did, in fact, produce a widespread and deepened awareness of the need for more rapid, governmentally supported "Affirmative action"; and along with this a deeper sense of existing injustice was brought home to many Americans. The distance traveled since President Eisenhower ordered National Guardsmen with bayonets to stand at the door of Central High School in Little Rock was enormous, even though one must also insist that unnumbered millions (some say 30 million) of Black and Spanish speaking people still constitute a vast reservoir of radical discontent in this most affluent of nations.

The chief explosion of the Sixties, however, was provoked by President Johnson's repudiation of his campaign position with a drastic escalation of the country's military involvement in Vietnam during the late winter and spring of 1965. Coupled as it was with the inequities of an out-dated system of conscription, a militant and largely youthful movement of dissent arose. As a vast credibility gap began to open up between presidential statements and discovered realities, the movement became larger, more militant, and more profoundly critical of the entire "System," including nearly all institutions of higher learning. So large and vehement did this movement become that a powerful and ambitious president chose not to seek re-election. But his successor was no more successful in quelling the resistance. In fact, as the war dragged on the critical constituency grew larger. Perhaps the peak of the protest came in the spring of 1970 after the invasion of Cambodia and the student-killings at Jackson State and Kent State. The chaotic denouement did not occur, however, until the spring of 1975, when an unelected President Ford, while inaugurating the Bicentennial Era at Lexington and Concord had to spend most of his time dealing with the chaotic collapse of the American regime in Vietnam. By that time the American "civil religion" had fallen into disarray. Before that, however, the compounding problems of Watergate had submerged the entire Nixon Administration and at the same time begun to dissipate the American's confidence in all levels of government as well as its traditional foreign and domestic policies alike. Ideological confusion was endemic.

In viewing the impact of the sixties from an ethical and moral standpoint, it is not enough to accent the new beliefs and value-structures that emerged, for the entire Traumatic Era was also a time of intense strain. For both traditional theological views and the institutions of the Biblical tradition it was a time of radical challenge. For Catholics it began with Pope John's call for aggiornamento, for updating the thought and practices of the Church. After the work of Vaticanum II its effects had brought uncertainty and consternation into almost every realm of Catholic life and thought.

For Protestants things were no better. In 1960 as if to provide the new decade with an inaugural, H. Richard Niebuhr published his Radical Monotheism, a startling book that moved very near to the "fatalism of Spinoza;" and it was followed by a host of more popular works of radical theology in which the death of God was announced. The influences that affected these thinkers were very diverse, but Dietrich Bonhoffer's call for a secular interpretation of biblical language was highly representative. From the standpoint of Reform Judaism, Richard Ruberstein declared in After Auschwitz that after the Holocaust theology was an impossible enterprise.

Among the laity similar difficulties with supernaturalism began to surface. A great many pastors also demitted on grounds that parish churches were unadapted for dealing with the nation's social crisis. There followed a steady decline in active church membership that continued into the 1970's.

Why after so many centuries of vitality these trends should have surfaced in the 1960's is a question often asked, but not easily answered. The best answer I can give in a brief statement is that in many respects a trend toward secularization of the biblical tradition had been more or less manifest in Europe for two or three centuries. It had been largely ignored in America, with the effect that the 1960's became a time of shaking foundations, of awakening to reality, and a feeling that religious beliefs should cohere with one's ordinary ways of understanding the world. And some credence is given to this interpretation by the ways in which many people, very often college students and their contemporaries, have found religious satisfaction in Eastern and other religious movements that do not make similar theological demands but which do provide specific disciplines for meditation and self-examination.

It is on this very speculative note that I must conclude this lecture. But I would like to emphasize two things in closing. One of these is a reminder that all of us in this room have been fellow participants in the events of this turbulent period and that none of us therefore is foreclosed from the important and fascinating task of discerning the signs of the times and trying to understand them. We must not let Emerson scare us off. And then finally I would like to reaffirm my central contention that in the whole realm of religion and values that we have been hastily exploring here, it did come to pass that the American people were decisively shaken up by these years of turmoil. Indeed a greater degree of moral shock may have been felt than at any other time in the national history. If I were allowed to venture a value judgment on the whole experience I would say that in most respects it was salutary. I might also repeat Hegel's famous dictum: Weltgeschichte ist Weltgericht: World history is the world's court of judgment. Or perhaps it would be more appropriate to repeat what Lincoln uttered in the midst of the Civil War: "The ways of the Almighty are perfect." Questions of justice and inequality were prominent during the Traumatic Years and we will never be far wrong if we keep that concern before us.

U.S. Agriculture: Will the Green Revolution Be Sustained?

Professor William Hulse Smith

Will the Green Revolution Be Sustained?

First of all, let's characterize modern agriculture as it is practiced in this country in a very brief way. There are certainly less farmers today than there were several years ago. Approximately a hundred years ago, let's say in the 1870s, ninety-five percent of the United States population worked in agriculture. Today, less than five percent are employed in agriculture. In 1920 there were thirty-two million farmers, thirty percent of the total population. And in 1971 only approximately nine million farmers, down to less than five percent of the total population.

In Eighteenth Century Connecticut ninety percent of the inhabitants lived on the farm. Presently, of Connecticut's three million people, less than eight thousand are farmers.

The second characteristic of agriculture as it's practiced in this country today is that we have less farms. In 1920 the total number of farms in this country was approximately six and a half million, and in 1972 the number of farms was down to 2.8 million. The number of working farms in the State of Connecticut in 1972 was forty-five hundred.

The third aspect of modern agriculture is the amount and distribution of farm land. Three-quarters of all human food comes from the world's crop land. Eleven percent of the globe's land surface is arable or farmable. The U.S. is fortunate to have twenty-five percent arable land. This totals approximately four hundred and seventy million acres, and eighty-one percent of that four hundred and seventy million acres is in fact under cultivation.

Now, if we were to try and develop the remaining arable land in this country, we would have to drain swamps, we would have to irrigate deserts, we would have to grade irregular terrain. Certainly the best arable land is already in production in this country. But very substantial crop land is lost annually to urbanization and highways, reservoirs and airports. Each year approximately two and one half million acres are lost. Since 1945 the total loss to other uses was approximately forty-five million acres, or an area nearly the size of that of the State of Nebraska. Presently strip mining directly disturbs approximately one hundred and fifty-three thousand acres a year, and in fact if we opt for President Carter's suggestion of more intensive use of coal, we can expect that that total loss to strip mining is going to increase substantially.

Actually some new crop land has been created. In fact, the total farm acreage in this country right now is not all that substantially different than it was several decades ago. The important thing to realize, however, is that there has been a shift to less productive acreage, in other words, the new acreage that has been brought into production has been done so at an energy investment. It has to be irrigated, it has to be graded, it has to be drained, or otherwise treated.

Farm production is up and correspondingly farm labor is down. The number of persons supplied per farm worker in 1940 was eleven. The number

of persons supplied per farm worker in 1971 was fifty. Corn production, for example, is a striking case study. Corn production per acre in 1939 was thirty bushels of corn. In 1972 the production was up to ninety-five bushels per acre, over a threefold increase. Similar success stories can be demonstrated for sorghum and several other crops. In the past few years, however, yields per acre of corn, sorghum, wheat and soybeans have failed to gain or have declined.

Farm income is up. Gross farm income in 1960 was thirty-eight million dollars in this country, and in 1970 it was up to fifty-eight million dollars. In 1974 a typical Iowa farmer with two hundred and fifty acres grossed approximately fifty thousand dollars a year. He may net approximately seventeen to eighteen thousand dollars per year.

In years past we have had enormous surpluses of grain, in particular, and other crops and we have been forced into an extraordinary storage situation. We have also been forced to pay growers not to farm because of surpluses. A few years ago we began intensively exporting a lot of our farm products to Russia and to other foreign countries, and this depleted all our surpluses. And just a few years ago we were in a situation with very, very little surplus at all in this country.

Now presently we are creeping back to a surplus situation because the Soviet Union and other countries have had very good crop years and our foreign demand for farm products has decreased dramatically. But nevertheless the general trend has been for an increase in farm exports.

Food costs, as you all are well aware, are tremendous, but Americans still have the lowest relative food costs in the world. At present the average U.S. family spends less than seventeen percent of its disposable income for food, and if you compare that with some other countries, Great Britain is at twenty-two percent, France, twenty-one percent, Japan, twenty-three percent, Algeria, fifty-four percent, Tunisia, sixty-six percent, and so on. So while our costs are very high, the percentage of disposable income spent by people in this country on food is still relatively low.

So, in summary of U.S. agriculture as it exists at this point, we have fewer farms, we have less farmers, we have in some areas redistribution of farm land to lower quality areas in terms of productivity, we have increased production, increased farming income, increased farm exports, and relatively low food costs. All of this essentially embodies the green revolution, that is, lots of food, little labor, and relatively low cost. The revolution has been taking place intensively in this country for approximately thirty-five years and has been taking place in some developing countries for the last ten years.

At this point it is very appropriate for those of us interested in history and environmental quality, to ask some questions about the green revolution. For example, how was it accomplished? Can it contiue to expand our food production? Is it a strategy that can be exported to other countries that do not have it right now? Are there undesirable environmental or ecological consequences that are associated with the green revolution? These are very complex questions to answer. I am going to concentrate my remarks on selected elements of the green revolution. I am going to stay away from sociology, and there are some obviously enormously important sociological

things that have happened. I am going to stay away from economics, which is something I know relatively little about, and I am going to talk about the on-the-ground biological parts of this green revolution.

The six major components that I am going to talk about are seed, feed, fertilizer, crop protection, energy, and irrigation. I propose that these are the six primary on-the-ground, biological ingredients of the green revolution.

Let's look at them in turn. Seed first. We have genetically improved varieties. Keep in mind that of the seven hundred thousand species of plants in the world, there are only eighty thousand that are edible. Only three thousand of these eighty thousand are normally considered crop plants, and only ten percent, or three hundred species are in abundant use. And in fact, only twelve species provide ninety percent of all edible crops, and the leading crops in order of importance are as follows: rice, wheat, corn, potatoes, soybeans, sorghum, barley, rye, millet, casava, sweet potatoes, and coconut.

Now, there has been a great deal of selection and a lot of genetic engineering with most of these crop plants, and there have been some striking success stories. For example, the International Rice Research Institute in the Philippines developed a variety of rice over a five year period that has increased production of rice in the Philippines. In one Philippine site, yield increased from seven hundred and ten to ten thousand pounds per acre. This strain, termed IR 8, has been introduced to other Asian countries and has increased average rice yields wherever it has been planted two to four times. Since the development of IR 8 it has been planted on twenty million acres in Turkey, India, Pakistan, and the Philippines.

Corn is another striking example of genetic development. In 1917 Donald F. Jones revolutionized corn production by developing a four cross system resulting in hybrid corn. What we have now is corn seed custom developed to be planted in specific regions of this country and around the world to maximize production.

There are a lot of other success stories that we could mention with respect to these plants. Improvement of wheat strains has doubled the wheat production in Mexico and India. Researchers at Purdue University are presently working on developing strains of sorghum that are high yielding strains. Basically we have much improved varieties for maximizing production, and that constitutes the most significant component of the seed element.

The second item, feed refers to the fact that we have improved our varieties for feeding animals. We have also improved our storage capability and technology. We have improved our delivery technology, so animals are given a better diet and more of it. We also have accomplished more understanding of hormone requirements for animals, and vitamin requirements for animals, so feed supplies in general have been made much more productive.

The third element is fertilizer. Plants require - have an absolute requirement for, sixteen elements for growth. Two of these elements, carbon and oxygen, come from the atmosphere, hydrogen comes from the water in the soil, and the remaining thirteen are all taken up by the plant from the soil solution. Now, of these thirteen, three are required in large amounts, and these three are, as many of you realize, nitrogen, potassium, and phosphorus.

Now, the process of harvesting or taking crop plants from the field for consumption removes the minerals that have been taken up from the soil and incorporated into the plant. Unless those nutrients are replaced over time, the fertility of any given site is bound to decrease.

Also it has been found that if these elements are applied in excess, then additional increases in growth may be realized. The need for these nutrients has been recognized for a long time, and of course originally was supplied by the use of animal or human manures. But now in this country and in many foreign countries there is complete dependence on synthetic fertilizers, that is, fertilizers that have actually been manufactured to contain primarily the most important nutrients. The consumption of fertilizers began to rise very sharply in the 1940s, and by 1970 we were adding seven million tons of nitrogen fertilizers to our fields, lawns, and forests.

That brings us to crop protection, and here the question is, protection from what? I am anxious to tell you that agriculturalists are bothered by three primary pests. The first are insects, the second are microorganisms that cause disease, and the third are weeds. And if any one of those three agents were, in a typical agricultural system, allowed to develop unchecked, with no strategy to control their effect, it is possible that as much as one-third of the crop each year could be lost to insects, a third to pathogens or microbes, and a third to weeds, which would leave the grower with very little left to market.

Presently the greatest agricultural dependence in this country for crop protection is on the use of chemicals called pesticides. Presently there are approximately sixty thousand pesticide formulations on the market. We use approximately forty-four thousand tons of pesticides per year, which is about three and a half ounces for every agricultural acre. The synthetic organic pesticide production is increasing at an approximate rate of about fifteen percent per year. The total sales in 1975 of pesticides was three billion dollars.

That brings us to the fifth element, energy. The American agricultural engine relies heavily on fossil fuels. Energy is used to grow, process, transport, wholesale, retail, and refrigerate agricultural products. Physical labor, that is, muscular energy from men and animals is virtually obsolete. Agricultural energy involves both on farm and off farm consumption. For example, on farm we presently have five million farm tractors in the United States. These and other machines are used to plant crops or are used to apply pesticides, are used to harvest crops, and are used to store products. Energy is used to irrigate. In Nebraska more than five million acres of corn and soybean land are now irrigated. In Kansas more than three million acres are now irrigated. Virtually all of this irrigation is done from deep wells that are pumped using natural gas. Many middle western grain elevators use natural gas to dry corn and soybeans before storing them in the fall. Chickens are reared in houses that are heated, air conditioned, and cleaned automatically at considerable investment in energy.

Off farm energy use includes the manufacture of fertilizer, which is an energy intensive industry. Energy is also used to manufacture pesticides that we have just mentioned. Energy is used to manufacture steel and plastic into all manner of agricultural tools and devices. Transportation of agricultural crops is an energy intensive business. Most grain is hauled by truck

to local elevators and then shipped on to processors by rail. Beef cattle and hogs are trucked from ranches and farms to feed lots, and then from feed lots again by truck to packers. Carcasses of beef and pork are then moved by truck to wholesalers or large supermarket chains. All of this requires a considerable investment of gasoline or diesel fuel.

Agricultural energy use is estimated at approximately three to three and a half percent of the nation's total energy consumption.

Our last element is irrigation. Global agriculture currently accounts for eighty to ninety percent of all the water used by humanity, not counting rain. Virtually all that amount goes for irrigation. Although only fifteen percent of the world's crop land is irrigated, it produces from thirty to forty percent of the world's food. Many of the new high yielding varieties of crop plants that we mentioned have a specific requirement for irrigation water, in order to maximize production. Irrigation consumes eighty percent of all water withdrawn in the seventeen western states in this country.

To summarize these six items I think it might be fair to try and estimate which three are the most important, and if we were to do that I think we would say that energy, fertilizers, and pesticides are the big three of the six elements of the green revolution.

Now we are in a position to ask our questions again, re-phrase them just a little bit perhaps. Can we expect continued yield increases from these six components? Are there undesirable ecological or environmental consequences from these six inputs? Can we freely export our green revolution technology involving these six elements? And in fact, can we feed the world's population if growth continues as it has?

I propose that the answer to the first two questions is, yes, and the answer to the second two questions is, no. To explain those answers I will run back through our six elements and criticize them, if you will, in terms of matters environmental and ecological.

Let's go back and talk about seed. Unfortunately, genetic manipulation of plants frequently leads to an end product that has some desirable characteristics and some undesirable characteristics. These undesirable characteristics may be insufficient height, for example they cannot be mechanically harvested or it may be inappropriate maturation time so that they mature at the wrong time of the year, or it may be poor color. Most importantly, however, it may be increased susceptibility to insect infestation or microbial infection. Now, the latter are especially dangerous as the strategy of modern agriculture, as you are all aware, is to plant large acreages of genetically uniform plant material. This practice predisposes to a situation with epidemic potential. If an insect or a microbe starts in a field that is genetically uniform and the weather is appropriate, there is high probability for very rapid spread.

Just to emphasize how narrow the genetic base is for principal crops in this country the major varieties that are planted typically number from 2-10.

A most recent example of this narrow genetic base hazard was the 1970 epidemic of southern corn leaf blight. This epidemic brought about the great-

est loss of a corn crop in one year in the United States due to a plant disease. Between July and harvest in 1970 it destroyed seven hundred million bushels, fifteen percent of the total corn crop, worth one billion dollars, and the only reason it did not do more than that was because the weather became unfavorable for the continued spread of this particular fungus. That kind of vulnerability presently exists in several other crops. Wheat, for example, occasionally sustains large losses because of epidemic disease caused by fungal pathogens.

Also there has been very recent concern relating to this narrow genetic base dealing with susceptibility to adverse weather. Weather varies every year and it is one of the farmer's biggest problems and biggest unpredictables. Susceptibility to weather certainly varies with variety. So few varieties planted, if they turn out to be particularly susceptible to a particular set of adverse weather conditions, could mean a large crop loss.

There are some problems with feed. As we are all aware, there is great concern about different food additives and human health, witness saccharin and other kinds of materials, and feed additives should also be a concern to human beings because of the potential adverse effects on animals and the secondary effects on human beings when they ingest the animals. I'll give one example of a material that has been brought into question.

A compound called diethylstilbestrol is a chemical in point. In the 1960s and early 1970s numerous cases of cancer in teenage young women were recorded in this country, and after much research these cancers were linked to a drug, diethylstilbestrol, commonly referred to as DES, given to the mothers of these particular victims to prevent miscarriages. By 1972 one hundred cancer cases linked to DES had been reported, and by 1974 the nationwide total was at two hundred with twenty-four deaths.

As a result the Food and Drug Administration warned against the use of this particular hormone during pregnancy. Unfortunately they also used this particular hormone to fatten cattle, that is to say, it is a feed additive. The FDA initially would not ban DES in cattle feed, and in 1973 after an eighteen month court fight by the Environmental Defense Fund, the FDA banned the most dangerous uses of DES in livestock feed.

That brings us to fertilizers. I guess the basic concern here is future supply. Recall we suggested that nitrogen and phosphorus, in particular, are extensively applied. Nitrogen is obtained primarily by industrial fixation from the air where supply is really no problem. Phosphorus, however, is produced primarily from mining phosphitic rock. Between 1954 and 1968 the world consumption of nitrogenous fertilizers increased by a factor of four, and phosphate fertilizers by a factor of three. Since nitrogen can be replaced from the atmosphere the supply presumably is no problem although I must say that it is a very energy intensive industry, that is to say, the fixation of atmospheric nitrogen uses a lot of energy and that is a problem. But the supply of nitrogen is not the problem.

But at the present rates of population growth and phosphorus consumption, known phosphorus reserves will be used up in sixty years by calculation of several people.

Another concern in addition to supply and energy use that relates to

fertilizers is a process termed eutrification; this is basically a process of fertilization of aquatic or water resources in agricultural areas. Run-off from agricultural areas tends to fertilize adjacent ponds, lakes, streams, and rivers, such that aquatic plants that live in these water bodies are in fact fertilized, just as the agricultural crops would be. As they grow and decompose they use up oxygen that makes the water oxygen deficient, which makes the water a less desirable habitat for fin fish and other aquatic animals.

It is presumed that the bulk of the eutrification process in this country that is undesirable stems from faulty sewerage treatment or no sewerage treatment, but indeed agricultural run-off is also an important component.

That brings us to crop protection, and you recall that we suggested that crop protection is primarily accomplished presently by the use of pesticides. There are several problems that have been addressed dealing with the use of these chemicals, and I'll just go through this list very briefly. First of all, the continued use of a particular chemical in an agricultural system means that the insect pest that you may be trying to control or the micro-organism you may be trying to control may become resistant in time. If a few individuals are resistant to a particular chemical they ultimately will be favored and ultimately will be the ones that are able to reproduce. So the agriculturalist has one of two options at that point if pest resistance develops. One is to increase the dose of the pesticide, which he can do, which costs him more money and society more energy, or he can change the chemical and switch to a new chemical which again would represent an investment in money and energy to produce.

Another problem is predator destruction. There often are in nature lots of organisms that naturally control a particular insect population, and frequently when you apply a chemical pesticide in an agricultural system you destroy the favorable insects as well as the undesirable insects. A secondary pest outbreak may also occur. This means that occasionally the use of pesticides, while they may be very effective in controlling the primary pest in a particular agricultural system, they may not control a secondary pest that was actually kept in check by the primary pest. Once you remove the primary pest, then other insects are able to feed on the crop and they may indeed become problems if they do not happen to be susceptible to the pesticide being used.

Influence on non-target organisms is something that I am sure you have heard a lot about. This is an instance where chemicals that are particularly persistent, like DDT for example, are able to move around in the world quite efficiently, and sometimes end up in some pretty peculiar places. Unfortunately persistent chemicals may accumulate in a given ecological system. For example, if you take a lake system and apply DDT to an adjacent agricultural field, you may end up with the aquatic plants in the lake having just a little bit of DDT in their plant parts. As these plant parts are fed upon by small fish, the fish end up with an accumulation of a lot of those plant parts and a fair amount of DDT. If these fish happen to be eaten by larger fish, the larger fish ends up with a pretty high insult because they are getting the chemical from the little fish. And then if something is feeding on the big fish, like an osprey or an eagle, the bird may end up with a very large body burden of DDT. This has happened, and is why we have problems with eagles and ospreys and other birds of prey in certain locations in this country.

And lastly of course is the question of mammalian toxicity which really refers to human beings, and some of these chemicals that are used in agricultural systems do have a relatively high toxicity to people, so that we ought to be concerned about what happens to the people that are applying the pesticides and we ought to be concerned about the people that are consuming agricultural products. We all carry around a body burden of DDT, for example, in our fat.

That brings us to energy. The principal raw material of modern U.S. agriculture is, as we have mentioned, fossil fuel. And as the green revolution is dependent on fossil energy, crop production costs will soar as fuel costs increase. As fuel prices increase the anticipated two hundred to five hundred percent in the next twenty-five years, crop production will increase in cost proportionately. While this will critically alter the green revolution in the developed nations, it may make the green revolution impossible in the developing nations. In addition, Professor David Pimentiel of Cornell University and Dr. Gary Heikel, formerly of the Connecticut Agricultural Experiment Station, have presented some pretty disturbing calculations. For example, Professor Pimentiel has employed corn as a case study in energy efficiency. As mentioned previously, extraordinary increases in corn yields have been realized since the early part of this century. Planting of hybrid corn accounts for approximately twenty to forty percent of this increase, and fossil fuel inputs account for approximately sixty to eighty percent of the increase.

In 1970 about 2.9 million kilocalories was used by farmers to raise an acre of corn. This is equivalent to eighty gallons of gasoline per acre. From 1945 to 1970 mean corn yields increased from thirty four bushels per acre to eighty-one bushels per acre, a 2.4 fold increase. However, mean energy inputs increased from 0.9 million kilocalories to 2.9 million kilocalories, a 3.1 fold increase. Hence the yield in corn calories decreased from 3.7 kilocalories per one fuel kilocalorie input in 1945 to a yield of approximately 2.8 kilocalories from the period 1954 to 1970, which is actually a twenty-four percent decrease.

What all these complicated numbers are saying is that we are putting more energy in and we are presently getting less digestible energy from the corn out. Now, Dr. Heikel points out that modern agricultural uses cultural energy one hundred to five hundred fold more efficiently than plants use sunlight. The efficiency of plant use of sunlight is only a tenth to three percent. And also, ten to fifty fold more efficiently than animals metabolize feed. Nevertheless, Heikel has calculated that for a significant number of modern cropping systems a ten to fifty fold increase in the expenditure of cultural energy per acre yields only a doubling or tripling of digestible energy per acre.

Also, the intensive use of animal products in U.S. diets is energy expensive. Heikel estimated that forty percent of the food energy in our diet comes from meat and other animal products like butter, eggs, milk, and oils. This animal production requires over eighty percent of the feed energy annually harvested from crops in this country. Investing eighty percent of our feed energy to produce less than half our diet may not be possible as fuel becomes more scarce and expensive.

The last element is irrigation. One of the concerns is climate change, that is, due to evaporation. The total volume of water used in irrigation

per year on the globe is seventeen hundred cubic kilometers, that's five percent of the total run-off of the earth. And there is considerable concern that the heat energy used to evaporate all that water and the resulting water vapor introduced into the atmosphere may change climate. There is good evidence that it does so locally, and there is not good evidence that it does so globally but both are concerns to climatologists.

Also concerning climate is the fact that once you irrigate a desert, for example, you change the reflectance a great deal. A desert without plants reflects a lot of the solar energy away. A desert that is irrigated and has a crop absorbs a lot more solar energy and tends to warm up the globe, and there are climatologists that are concerned with whether or not the globe is getting warmer or cooler.

Supply is another important concern. Although water is one of the most abundant materials on earth, well over ninety-nine percent is presently inaccessible. Desalting sea water, once one of the most highly touted methods, is now regarded as offering only marginal opportunities in the near future for irrigation water. A recent report by the National Academy of Sciences concluded that although new and improved desalting methods using membranes and ion exchange have been developed, no method can yet promise truly low cost fresh water.

Another problem is fossil water. In some areas, for example in North Africa, the Sahara oases, man is mining underground water. This water is termed fossil water because it was accumulated in earlier climatic times, when there was more precipitation than there is now. The drop of several meters in the ground water level can only be interpreted in these areas as a consequence of an increasing imbalance between the use of this fossil water and its failure to be recharged from the surface. In arid regions of the west, in west Texas and eastern New Mexico in the United States, fossil water has been used to irrigate cotton and wheat crops, and in many of these areas the water table has dropped and many wells have gone dry.

There is another problem with irrigation, and that is mineral-salt soil-pollution. When irrigation water is evaporated it frequently leaves a salt residue behind which after several years of irrigation can build up to a point where the salts are toxic to the plants that are grown there. Also the energy investment in irrigation is very high because the water has to be pumped out of the ground and then it has to be distributed around the field.

We have attempted to survey the six elements of the green revolution, attempted to make some generalized comments about the problems, and very briefly in conclusion I will give you my own editorial and my recommendations for the future.

First of all, the essentially one-way flow of nutrients from agricultural systems to urban areas to fresh water areas has to be stopped. Nutrients must be returned to crop lands or diverted to other productive uses, such as aquaculture or whatever. We absolutely have to develop strategies to recover phosphorus, for example, instead of just letting it flow back into the ocean.

Pesticides used in the environment should be well researched in regard to short and long run consequences. Those employed should be carefully selected in regard to three criteria. First of all, spectrum of toxicity. The materials that have the lowest or smallest spectrum of toxicity, that

impact the smallest number of insect organisms are the ones that should be favored. Pesticides that have low toxicity to human beings should clearly be favored. Pesticides that are short-lived in the environment should clearly be favored.

Every effort should be made to combine or replace chemical pest control with other methods, and in particular with an integrated approach that employs good cultural practice, biological control where possible, crop diversity, and resistant varieties.

Plant breeding programs must carefully consider pest and weather susceptibility in their progeny. An excessive dependence on specific genetic varieties for extended periods is absolutely unwise.

In order to reduce energy inputs there seem to be several options. One would be to use more labor, increase labor input, reduce energy input. One application of herbicide to a corn field requires eighteen thousand kilocalories per acre if applied by tractor and sprayer, but less than three hundred kilocalories per acre if applied by hand sprayer.

We also need to use machinery that is precisely scaled for particular jobs and that operate at particular speeds. Just like cars have gotten very large in this country so have tractors. Frequently large tractors are used that are completely out of scale to the needs of the farmer.

With regard to fertilizer practice, we have absolutely no choice except recycling. One certainly would be able to use more manure rather than chemical fertilizers, and there seems to be great opportunity in certain areas of this country to do that, where animals and plants are grown relatively together.

And finally I expect that one of the things we may have to do is to eat more plant products, that is, more grain, and less meat. Increased need for food products is not only due to population growth but it is also due to the desire of affluent countries to eat meat instead of grain, and it takes seven pounds of grain to produce one pound of beef. The majority of the world's population lives on approximately twenty-one hundred kilocalories per capita per day, and obtains most of its protein from grains. For example, in the Far East approximately fifty-six grams of protein per capita are consumed daily, and only approximately eight grams are animal protein. In contrast, in the United States the protein consumed per capita per day totals ninety-six grams with approximately sixty-six grams of animal origin. In addition to the resource cost of a high animal or a high animal protein diet, there are some health difficulties that are associated, as you well know. Coronary heart disease is associated with high serum cholesterol, which is influenced by animal products such as liver, eggs, shrimp, beef, and dairy products.

In conclusion, I feel it is questionable that the green revolution can feed the sixteen billion humans anticipated by 2135. It is questionable because of shortages of land, shortages of water, shortages of energy, shortages of resources, and plant nutrients. It is questionable because of the narrowness of the genetic composition of crop plants and the associated attendant susceptibility to various crop stresses. It is questionable because of the unacceptable risks associated with the use of certain chemicals for pest control and/or increased growth. I guess that leaves us concluding that the only obvious effective solution is organized population control.

Prospects for Continued Economic Growth in the United States

Professor James Tobin

The period since the second world war has been a period of very substantial economic growth. In fact, in growth of per capita income and consumption, in improvement in standard of living of the average American, the period shows the best record in our history. The best decade was actually the 1960s.

Of course, the entire two centuries of economic progress is a remarkable story, but a large part of the tremendous growth of national product in the United States is the growth of population. Over the two hundred years the population grew on average more than 2% per year, and multiplied by fifty times, thanks mainly to immigrants and their descendants.

In more recent times, of course, immigration and population growth have slowed. The record performance since the second world war is in production per worker and income per head of population.

What will happen from now on? It will help if I make first of all a very useful distinction, one which economists generally make in discussing economic growth. The distinction is between the nation's potential production and its actual production. The measure of production for this purpose is Gross National Product, the annual volume of output of goods and services in the country. I am going to use GNP in a sense which purges it of inflation, so its growth is the increase in physical volumes of production. By potential output we mean what the economy is capable of producing, at normal rates of utilization of industrial capacity and normal rates of unemployment of labor. Currently, rather typical estimates of "normal" rates are 5% for unemployment of labor and about 90% for the use of capacity in industry.

Since the late 1940s the potential output of the country has been growing at around three and a half or four percent per year. A good estimate now is that the rate of growth of potential output is about 4% per year. That means that if the economy were steady at 5% unemployment -- which it is not, of course -- then real GNP would increase at around 4% per year on average. To put it another way, that has been the trend rate of growth of output in this country.

This trend can be decomposed into two parts. One is the growth of labor input employed, measured in hours of work. The other is the growth of productivity of labor per hour of work. The growth of labor input runs around 1 3/4 or 2% a year. The number of persons working or seeking work climbs steadily, more than offsetting a slow downward trend in average hours worked per year. The growth of productivity makes up the rest of the 4%, another 2 or 2 1/4%.

What are the sources of the improvement in productivity? Mainly it's progress in technology, finding more efficient ways of doing things. Often those new ways require and use new kinds of capital goods; business machines, calculators, and computers are dramatic examples. Improvement in productivity is connected with capital accumulation which embodies and carries with it technological progress. Some gains in productivity are related to the improvement in the quality of the labor force, in its education, training, experience.

Unless real output does grow at 4% per year and there are purchasers to buy it, enemployment will actually rise. It will rise because there won't be enough jobs to absorb the new workers coming into the labor force and workers released because of improvements in productivity. When you read in the newspapers about the performance of the economy, for example right now, this year, when people tell you how good things are when output is growing at 5% per year, just remember that par for the course is not zero but 4%. You have to run at 4% just to stay in the same place. 5% is only one point better than par, and the reduction in unemployment that you can expect from an extra point of growth isn't very great, less than half a point of unemployment over the course of a year.

I return to the comparison of actual output and potential output. Potential output, that is the hypothetical calculation I just described; and actual output, that's what we in fact experience. I will draw a diagram on the board. (Figure 1)

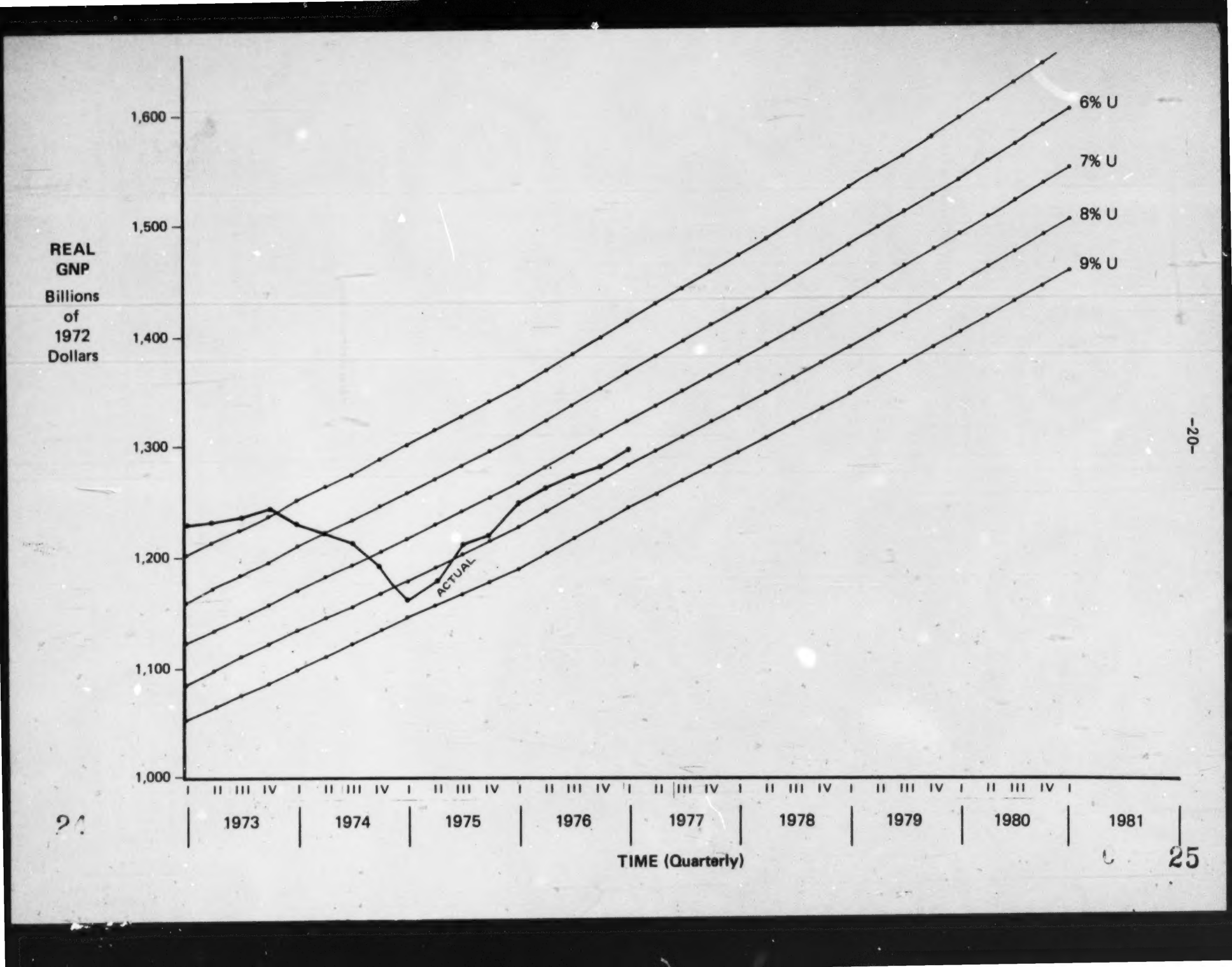
Let's start back in 1973, for reasons I will explain in a minute, and then go on, let's say, to 1981. That's the end of the first Carter Administration, an important date. Here is potential real GNP. In 1973, it happens, we had 5% unemployment -- actual GNP was right on potential. From that point, potential grew like compound interest with a rate of 4%.

Unfortuantely, as you may remember, what actually happened was quite different. The worst post-war recession started in the latter part of 1973 and snowballed in 1974, ending in the early spring of 1975. For two years we have been slowly recovering. Now our actual GNP is a bit above its pre-recession level in 1973. Meanwhile potential GNP has continued on its compound-interest track, as the labor force and productivity have increased. Consequently, unemployment is now 7.3%, whereas on the potential track it would be 5%. The GNP difference between actual and potential exceeds $100 billion. Some econometricians would put it as high as $150 billion. In any case, it is a big loss from a national product of $1800 billion.

After this review of our recent history and present situation, I wish to discuss three questions about our future, over the next decade or two. First, what are the prospects of getting the actual GNP track back to the potential track? Second, what is the outlook for the growth of labor force? Third, what about the future growth of productivity? The first question has to do with bringing actual performance up to the potential of the economy, and the two others have to do with what may happen to the potential itself.

On the first point, the main reason for the poor performance of the economy since 1973 is the paralysis of the society with respect to inflation. The inflation/unemployment dilemma is a problem that all non-communist industrial countries have been facing almost all the time since the second world war, and has become especially acute in the last ten or twelve years throughout the western world. We in the United States haven't been alone in failing to resolve it. No one else has succeeded either, and we have probably done better than most. We haven't found a way, and neither has anyone else, of sustaining full employment in a non-inflationary economic environment.

The reason for the 1973-74 recession was to fight inflation. The recession was the consequence of deliberate Federal policy. The Nixon-Ford Administration and the Federal Reserve slammed on the brakes because they were


REAL GNP
Billions of 1972 Dollars
1,600
1,500
1,400
1,300
1,200
1,100
1,000
6% U
7% U
8% U
9% U
ACTUAL
I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV
1973
1974
1975
1976
1977
1978
1979
1980
1981
TIME (Quarterly)

alarmed -- one might even say panicked -- by "double digit" inflation. Inflation rates reached two digits because of the quadrupling of the oil price by OPEC, because of some extraordinary world shortages of foodstuffs in 1973 and 1974, and because we had deliberately ourselves devalued the United States dollar in foreign exchange and increased the dollar prices of imported and exported goods. Those extraordinary events all had a big impact on price indexes in a short period of time. The Federal government and particularly the Federal Reserve System, which has responsibility for monetary and credit policy, were scared. They were afraid the inflation might get out of hand in the United States. What to do? They couldn't change the OPEC price of oil and they couldn't affect Russian wheat harvests but they could deflate demand in the U.S. The Federal Reserve engineered a sharp and large increase in interest rates, cutting down on residential mortgage lending and residential construction, making it expensive and difficult for businessmen to borrow to finance capital expansion and for consumers to borrow for consumer durable goods. The policy worked -- we had the recession. It worked a little better than its authors intended, and the recession was deeper than they expected.

Why haven't we had a more vigorous policy to recover from the recession? Why are we taking five years to recover a fifteen months recession? Again the answer is fear of inflation. We don't have double digit inflation now, but a built-in persistent, stubborn inflation of about 6% per year. It wiggles around that figure up and down, depending on what happens to coffee harvests in Brazil, wheat yields in the Dakotas, citrus crops in Florida, and other random events. But the underlying trend of 6% is very solid. It is linked to the underlying trend of money wages, rising about 8% per year. The difference between the two of them, 8% wage increase and the 6% average trend price increase, is the normal two percent productivity gain I previously mentioned. The productivity reduction of labor costs cancesl out two of the eight points of the average wage increases.

It is to expunge that 6% inflation that the previous Administration -- and, it becomes increasingly evident, the current Administration too -- follows a go-slow recovery policy. That is why we still have 7.3% unemployment and why the prospects are that unemployment will fall very slowly. Under go-slow recovery policy, it will take years to eliminate the gap between actual and potential GNP. Experience shows that holding the economy down will melt the hard core inflation, but very, very slowly.

There are two alternatives. One is to accept and live with the 6% inflation we have inherited in the past, and move more quickly to a tolerable unemployment rate, say 5%. I personally see little wrong with this approach, but politicians and pundits have led the public to believe that all the economic distress of the 1970s is due to "inflation" rather than to uncontrollable events and to the measures taken in the name of anti-inflation.

The second alternative is to adopt a very different anti-inflation strategy, relying not on general fiscal and monetary measures to limit the recovery and growth of business activity but on specific measures to limit wage and price increases. I do not mean necessarily full compulsory wage and price controls, but guideposts such as were successfully used in the early 1960s. They could be supplemented by tax penalties for exceeding them or tax remissions for complying with them. There are a number of other possibilities for using the tax system to de-escalate inflation. But this approach is at the moment politically unacceptable to both labor and business. This Administration, like the previous Administration, has promised not to adopt it. All of this adds up to an impasse. We seem to have painted ourselves into a corner,

and we're unwilling to face squarely the hard choices before us. This paralysis afflicts other countries too. It is a critical economic and political problem for the western democracies. Like the Great Depression of the 1930s, it may seriously affect the performance of our societies for a long time.

Let me turn to the other two questions. They refer to the potential line in my diagram. That becomes relevant in the long run if we resolve the first question. Surely we will figure out a way of using our capability to produce goods and services. Surely we will not let productive resources -- workers, machines and factories -- remain idle for a decade at a time as we did in the Great Depression. Surely we won't do that again. Surely in the long run it's the productive resources available to us and the technology with which to use them that will determine our standard of life.

First, in regard to the labor force, we all know of the decline in human fertility in this country. Fashions change, and so do the choices of men and women as to how many children they have and how soon they have them. If present behavior continues -- a fortiori if the trend in behavior continues -- this society will not just achieve zero population growth. We will have a declining population some time in the next century. That's assuming that we don't allow a lot more immigration than we do now. The battle for ZPG is already won, judging by the behavior of women of child-bearing age today.

But we will not see zero population growth tomorrow or next year or next decade, or in all probability in this century. It will take a while for current child-bearing behavior to dominate the scene. In the meantime there will be a disproportionate number of people of child-bearing age. The children of the post-war baby boom, born in the late forties, fifties, and early sixties, are now the men and women of child-bearing age. There are lots of them, and more coming into adulthood. Even though they won't have as many children per family as their mothers and fathers did, they'll have a lot of children in aggregate. The overall population will continue to grow for some time while the bulge in the young adult population gradually disappears.

There will be some echoes of the baby boom as time goes on. We had the post-war babies in school and college, and we'll have their children too. The business you and I are in won't be so bad in another few years. We'll have a temporary gain in pupils coming into school and college for a while again, the children of the wave that did so well by us in the 1950s and 1960s, and then business will drop off again.

For the remainder of this century we'll still have substantial growth in the population of adults of working age in the country. Indeed, we may never get to ZPG or declining population. Fashions and life styles can change again. Large families may become popular once again.

For the foreseeable future the labor force will grow faster than the population of working age. A larger percentage of men and women over sixteen will be working or be wanting to work. The main reason is the continuing trend of women into the labor force, another aspect of the same changes in life style that lead to reduced fertility. As recently as 1960, 37% of adult women were in the labor force; and now it's 46%. Projections are 48% in 1980, and 52% in 1990. I wouldn't be surprised if female participation in the labor force rose even faster. Male participation in the labor force is about 77%, and in time female behavior will converge to male. This trend will keep labor

force growth high even when the population itself begins to grow less rapidly.

Eventually ZPG would pervasively change economic circumstances and social arrangements in this country. It will be a different society if the median population age is thirty-seven instead of twenty-seven. Just think of universities, schools, and bureaucracies with tenure jobs. When they are growing, there's always room for young recruits. When they are not, you get a lot of dead wood at the top and restricted opportunities for young people.

In regard to productivity, energy shortage is the main threat to continuing progress that comes to mind. But I frankly don't believe that there need be any significant reduction in the rate of growth of which this economy is capable over the next two or three decades because of the energy problem. As I see it, the problem is essentially one of transition, shifting from one source of energy to another. Petroleum will give way to coal, and fossil fuels to reproducible sources, nuclear and solar. The United States is in a pretty good position to manage these transitions. We have large supplies of coal, but we must solve the problems of extracting and using coal in environmentally safe ways. This society has met more difficult technological challenges in the past.

I imagine that some time in the twenty-first century there will be a backstop technology for energy, an indefinitely reproducible source, one that will last as long as the sun -- maybe the sun itself, maybe nuclear fusion, maybe buring hydrogen. If such a reproducible source will become available some time in the twenty-first century, it matters little the exact date and it matters little how costly it will be in terms of human labor and capital investment. The important point is that energy will not limit economic growth in the long run. That is not to minimize the problems of transition.

If no backstop technology exists, if the ingenuity of science is not sufficient, then our civilization is going to wind down. There is nothing to do but decide how fast to unwind it, trying to phase the population out at the same time.

In the interim there is ample room for conservation and substitution. It is noteworthy that in Sweden, where the per capita standard of living is as high as ours or higher, the use of energy per capita is 40% less. And theirs is a colder climate too. There are several reasons, but one substantial reason is simply that the price of fuel, including gasoline, is much higher. The society and the economy have long since adapted to higher prices, notably by driving smaller cars and using much more insulation than we do.

It is a great mistake to assume that there is some fixed link of proportionality between energy use and GNP. If there were, then slowdown in consumption of energy per capita or per dollar of GNP is bound to bring down the slope of the potential output curve. Actually there are great possibilities for substitution, for producing the same GNP with lesser amounts of energy. The reason we have used lots of energy per dollar of GNP is purely and simply that it's been cheap for us. Our technologies and our personal habits have been adapted to the low price. We were lucky that our ancestors settled a country with abundant fossil fuel deposits. Our heavy use of energy does not reflect on our character. It does not suggest that we are congenitally or sociologically more profligate and wasteful than the Swedes or the Japanese or anyone else. It's just that we have adapted to the relative abund-

ance of energy as reflected in its price. We can adapt the other way too, as other societies have done.

My colleague, Bill Nordhaus, who has been working very hard on this problem both before and since he went to serve on President Carter's Council of Economic Advisers, has estimated that a thirty percent reduction in the use of energy per unit of production could be accomplished while losing only one or two percent of the level of output. With the proper price and cost incentives to economize and make substitutions, thirty years from now we could stay within one or two percent of the potential curve in Figure 1, even while making energy savings of 30%.

Let us be clear that this is not a reduction of one or two points a year from the 4% GNP growth rate. It's just a one-shot reduction of one or two percent spread over twenty or thirty years, hardly noticeable in the per annum growth rate. We have already paid a considerable part of the price for the increased scarcity of oil. The extra cost of imports transfers to OPEC about a quarter percent of our GNP.

In summary, I think the prospects are good that the capacity of the economy to produce will continue to grow as in the past, offering our citizens the opportunity for an ever higher standard of living. The most difficult challenge is to arrange things politically and economically so that we will realize the opportunity and raise the actual performance of the economy up to its higher and higher potential.

China and the United States: History and the Future

Professor Jonathan D. Spence

I am going to talk about the United States and China, but get away from the idea that the interactions through foreign policy are all that matter; I want to suggest that domestic policy in both countries and the racial and political attitudes of both countries are equally important. So I want to take a range of problems. I am going to look at ten very rapidly; each of these ten could either be a course, or a book, or a unit, or an individual lecture.

I. The first of these, then, is where the first U.S. perceptions of China come from. It is important to remember that they come through the eyes of traders, mainly from the northeast coast of the United States and those traders built on a group of extremely negative stereotypes that had been developed by the British traders in the eighteenth century. Also their values came profoundly in conflict with the Chinese value system because the Chinese value system was one of prohibiting the kind of trade that the westerners were seeking.

With this, however, is the fact that in this first phase the philosophes of the French enlightenment, the great philosophers of the eighteenth century of whom Voltaire was the most influential at this time, had developed a structure of extraordinarily pro-Chinese stereotypes, quite extravagantly favorable to the Chinese. They had done this mainly because of the fact that by using Chinese rationalism, as they interpreted Confusianism, they could attack the Catholic Church in their own countries. Thus pro-Chineseness in the western world develops an anti-Catholic, clerical stance.

The French enlightenment was carried over into the States, most spectacularly by Benjamin Franklin. But it is interesting to find Jefferson also torn in this direction of favoring certain aspects of Chinese society as he thought those had been transmuted to the west through the philosophes, and particularly the idea of the Chinese as a rational state, the Chinese as an urbane and humane society, Confucianism as embodying a kind of natural ethical system, and the Chinese examination system for the bureaucracy as being the first major system developed in the world for what was believed to be a kind of natural aristocracy of the talents.

Now, this warred very much with the negative stereotype of the merchants. But that is really where the roots of American policy attitudes come from, those two combinations.

II. The second major area that I would always want to talk about in a course or a class on this theme would be to move to the Chinese perceptions and the validity that the Chinese had for holding those perceptions. The most fundamental and enduring one was that China essentially did not need input from the west, and I think there are grounds for saying this is one of the most persistent themes in Chinese history. It is certainly persistent now. The Chinese felt that China by and large was a self-sufficient economy, that most of the products and the personnel that the west could offer promised very little except trouble, that the value system and the social system that existed in China did not need this kind of complication, that the inputs being offered were not necessary to the structure of the Chinese economic life, and

that the kind of values and privileges demanded by the foreigners coming to China could be nothing but disruptive to the kind of law and order that the Chinese ruling class wished to impose on its own subjects.

Thus the western traders from the very beginning were corraled in the Canton system, which was the attempt to hold all foreigners bringing trade to China in and around the area of Canton. Since the Nixon visit Canton is once again the center, the focus for all western input into China.

Canton is chosen for various reasons. It is the closest major Chinese metropolis to the southeast Asian trade nexus, it is also the furthest port from Peking in the north, thus removing the taint or any potential foreign taint as far as possible from the centers of Chinese political power. It is also known that tradition had a certain criss-crossing of population, minority populations, contact with southeast Asia and the major source of Chinese migration, so it is still overwhelmingly true that the bulk of Chinese overseas, in southeast Asia and the west coast of the United States come from Cantonese descent.

So the westerners as outsiders and unnecessary, and as when possible to be localized -- these are major themes to pursue. And when this began to crack, when the westerners finally began to bring in massive imports to China, the Chinese do not forget that the only profitable trade on a massive scale was opium. We can go into the morality of that and the economic structure of it, but no other trade in the whole nineteenth century ever developed anything like the impact economically to the western profit that opium did. So when Chinese review those early years of the western contact, it is in this early stage of economic imperialism symbolized by the opium war. Chinese schools now in the People's Republic always start modern Chinese history with the opium war.

III. A third group, moving into the nineteenth century, is the shift in pace that comes with new American attitudes, the key one being the growing influence of Protestant missionaries from the United States, and the very ambiguous attitudes developed by the Protestant missionaries because of tension with Catholic missionaries and tensions between British, French, German, and American Protestants. Also remember the extraordinary hope, the euphoria, that China offered the largest harvest of souls that the world had ever offered any missionary group. This was a kind of trap of grandeur, like the one that the Jesuits had fallen into in the seventeenth century.

With this enormous euphoria for the immensity of the Chinese conversion potential went an astonishing Chinese resistance to conversion to Christianity, and again, seeking the roots of this is very difficult. But the Chinese put up a steady and complicated battle. To chart this through could itself make a whole course, but it must be remembered that the euphoria and the resistance come right together. So does the reliance of the missionaries' penetration of the Chinese mainland on military power of their various countries. The opening of the internal Chinese treaty ports that the missionaries were then able to enter and preach from was accomplished by military means, going hand in hand with a particularly ruthless kind of diplomacy which was practiced in the nineteenth century in the China area.

Still in the third phase goes development of American business interests and the spread from a smallish area of the northeast, down the southern eastern coast of the States, and over to the west coast. The dream of a large China

market matched in scale the euphoria that confronted the missionaries, and ran into the most complex kind of frustrations as businessmen tried to grapple with the problem of why the Chinese were so resistant to American products, looking for plots where there was little more than an absence of specie. They did indeed have four hundred million customers by the 1860s, but there were few people in this immense group who were living anywhere above the subsistence level and there was simply nowhere for purchasing power to come from for western products.

IV. A fourth period that I like to concentrate on for at least one lecture in my own Yale course, though it is sometimes regarded as a rather special subject, is that of the Chinese movement into the United States. I'd have an A, B, C, D, in here. A, was the brief period of acceptance and harmony in the 1850s, particularly in the San Francisco area, just after the initial gold rush, when there weren't very many Chinese in the states and they were regarded with great sympathy and amusement and treated very well, and even feted and so on on the west coast. But it moves very rapidly into phase B, which is the systematic development of legal and racial discrimination against the Chinese, a very complicated story, fascinating for students who are interested in early legal history. It's one of the real areas where they can get right into the documents in most libraries, even fairly small ones, particularly if you can get hold of some congressional findings. Students can very rapidly begin to study the structure of discriminatory law. It also ultimately is a moderately happy story in that though extraordinary, vindictive laws were indeed passed at the local level in California, eventually these were overturned by the Supreme Court. These included special laws to discriminate against the Chinese in whichever area they happened to be doing well. For instance, sudden enormous taxes on Chinese laundries in L.A. or San Francisco, or a sudden decision to change a school zoning structure, or a sudden change in the right to give witness in court cases.

That is a pattern that develops through the 1860s and 1870s, and in phase C, it moves into a very interesting area of American and Chinese history, the development of a massive anti-Chinese lobby in the States which was led by organized labor. Students often have a conception that there was an elitist reaction against the poor masses of the Chinese. There was not. This was a labor-formulated and led position against Chinese workers, because it is the very dream of America as a free land and a new opportunity that drives the new immigrants to so bitterly attack the Chinese, who they think are undercutting wage levels. And so the Chinese represented the Ch'ing state. They represented low wages, they represented what were regarded as bad living habits, and they represented opium and other forms of addiction that were very much feared in this American society.

Lastly, by the 1880s and early 90s, with such things as massacres in Wyoming and Los Angeles comes the development into phase D, of this subcategory, which is making anti-Chinese racism a national political platform. The development of the exclusion acts from the 1880s through to the final triumphant, really hard-hitting 1904 law banning all further Chinese immigration except for certain key educated or financial categories, was the result of a protracted national lobby. Whatever their political feelings or their feelings about racial injustice, a whole series of presidents of the United States did not feel strong enough to oppose what had become a bi-partisan, safe issue.

V. So that would end phase four, and leads into phase five, which I

call Chinese reactions to all of phase four. I think moving back into China at this point can be very instructive. First of all, we find the many-layered tensions in the States, echoed by many-layered tensions in China itself, particularly the development of hostility among the Confucian Chinese gentry to both the missionaries in China and to Chinese converts. It is important to remember that the people most often killed in riots in China are not westerners, because it's often too dangerous to kill westerners, but they are the Chinese who have been converted to Christianity.

Secondly, the violent outbreak of the Boxer rising which can be used so easily to show the craziness or the cruelty or the wildness of the Chinese or the low level of civilization, takes on a very different look when you compare it with the sort of thing that had been going on in Wyoming, San Francisco and Los Angeles, and also had been building up against the converts in China over a thirty-year span. It's less a sudden aberration than a complicated part of a developing and bitter sort of racist series of attitudes on both sides of the Pacific.

And lastly it leads in this phase five to the first great manifestation of modern Chinese nationalism. The Chinese began to amalgamate along lines of class and economic interest as opposed to the earlier patternings of following Confucian stereotypes about occupational lines. These new developments invoked mass mobilization of students, the involvement of women in political movements, the sense of solidarity among workers, and were mainly triggered by the great boycotts of 1905 in China, which were specific reactions to the injustice of the American exclusion act. So you can say the first awareness of a kind of a global political issue as it filters into China is in southeast China in this period. And one can link that forward to the development of nationalism in the KMT period or in the Communist Party itself.

VI. The sixth phase covers the early twentieth century. It is the first time that American business moves really aggressively and successfully into China outside the opium area, particularly in the first fifteen or twenty years of this century. You get the development of the British American Tobacco trust headed by Duke out of North Carolina, which built up a multimillion dollar Chinese operation, and moved Chinese cigarette smoking up from a mere nothing at the turn of the century to I think twenty or thirty billion cigarettes a year by 1925, a great triumph for American business acumen and also a very shrewd use by Duke and his agents of Chinese commercial structures.

The same is true for the Singer sewing machine empire which had one of its most lucrative markets in China, for Standard Oil's kerosene division, and various other areas. Whether or not these should be called "imperialist" or "economic imperialist" is something that good students are fascinated to get into.

BAT, the tobacco trust built up in China by Duke, muddles all of the conventions of what imperialism should be -- he transplants the tobacco plants from the States and grows them in Chinese soil. He then builds his factories in China, trains Chinese workers themselves to make the cigarettes, and then he uses a traditional Chinese distribution system to market his product inland in China, geared to a massive American style advertising campaign which he was the first entrepreneur to have the sense to transmute into Chinese characters, into Chinese emotional ethos, so that Duke would always have twin advertising campaigns. For instance, in the 1920s in one you would see a traditional Chinese scholar smoking through a long holder, in a languid way,

a BAT cigarette. In the other one you'd have a young flapper with bobbed hair, a young Chinese girl, out with her boyfriend in a buggy smoking. Thus Duke would always try and hit the traditionalistic and the modernistic at the same time.

The next area which I have marked here is the alliance with the KMT, the Kuomintang Party, led by Chiang Kai-shek after 1928, which developed very tight interrelationships between the American missionary interest in China and marginally less important ones with the American business interest, a relationship which of course by ideology and many other factors the Communist Party of China had to be excluded from, as indeed did many of the more radical political groups.

It's important to bring in here, or the story doesn't make any sense, the fact that the KMT was pursuing reformist and often quite radical land policies, economic policies, and so on. The tragedy was that they were on a very small area of Chinese soil, but they gave some reality to western dreams that reformism or modernism could be expected to come under Chiang Kai-shek's leadership, that it needn't come only from the communists.

Another area that has to be considered is the force of Chinese nationalism in this period, domestic Chinese nationalsim growing from the boycotts and later movements. The places like Yale-in-China, for instance, are effectively closed down by the communities in their own towns, by the Chinese students who were the very graduates from these same schools. In other words, the Promethean force, of some of this education and the ideas it introduced to China were enough simply to close down the institutions that introduced such ideas.

Lastly (and as soon as you start talking about such areas of Chinese nationalism as student passion and the workers movement, you must switch tack slightly), I think of the very large numbers of Chinese students being trained in the States by the 1920s. Some of their most able academic leaders and political leaders, and economists, were being sent over quite young to the States, were learning excellent English and were then taking American bachelor's degrees, very ofter going on to Ph.D. degrees in eastern colleges. So when these people returned to China there was something of an inevitable brief formulation of an American-trained elite who dominated certain key areas within the economy and intellectual life, but who once again were inevitably to be suspect after the Communists took power. One can use this as one way of looking forward into the attitude toward foreigners by the Communists, and their attempt to give a class label to their returned students.

VII. A seventh area would be the complicated swings in world opinion that came around during World War II. One of these is the upsurge of American sympathy for the Chinese under Japanese aggression, and the development of the modern stereotype of the Chinese formed in the late thirties: the resistance after his retreat into Chungking by Chiang Kai-shek, the whole idea of the Burma Road as representing a kind of a triumph of Chinese will to survive in the face of almost unbearable odds, the heroism of Claire Lee Chennault and the Flying Tigers, and the excellent service that they provided to the Chinese gave a sort of a heroic and forward looking tilt to this whole very desperate military adventure.

With this goes the corresponding disillusionment on the part of the Chinese at the paucity of American aid during the same period. While their

sympathy was at its highest, Congress refused to advance any major loans to Chiang Kai-shek, the corollary being that the Chinese understandably regarded Pearl Harbor as being a great blessing and felt that the forcing of America into the war must inevitably remove the Chinese from much of the burden for carrying this campaign onwards in their own country.

Along with this is the tension between General Stilwell and Claire Lee Chennault which really represents two poles of feelings about politics and modern warfare, the tension between the air force versus ground armies, between the concentration on officer corps or the common soldier, between the attempt to attack cliqueism or private relationships in the military structure. President Roosevelt initially backed Chennault and then backed Stilwell, so that the American government offended the KMT from both sides at once while still claiming to be backing it in public.

Along with this came the refusal (because of Chiang Kai-shek's insistence), to allow American aid in any way to go to the Communists, who were holding about half the front line against the Japanese. This was a very important decision that was made for many excellent reasons, but strategically and militarily it often didn't make sense and led to a great deal of tension in the American State Department. For those of you who are doing units on modern America, that was a central part of the McCarthyist era, since it was these officers who had in despatches suggested the possible feasibility of flying or air dropping some aid to the Communists in Yenan. In 1943 this made very good sense. In 1953, before a House UnAmerican Activities Committee, it finished you. And I would certainly devote some time in looking at the character and the success of George Marshall during the Marshall mission, and the delicacy of his idea that the Americans in some way were free or had the right or the chance of mediating between a civil war of this complexity. We have lived through that many times since, and if you are doing a Vietnam course (or even mentioning Vietnam) the parallels are very instructive and complicated and interesting.

VIII. The eighth level would be the whole one of Korean War and Cold War hostility, and if one has the time it's interesting to study the late part of 1949 as against 1950, and see what a major difference the Korean War did make, how very near it seems that the Americans were to recognize the Communist regime in late 1949, how strong the lobby was growing for admitting Communist China into the U.N. instead of Taiwan, and how very rapidly this whole attitude switched once the Chinese entered that conflict.

The result of the Cold War hostility is that neither the States or China have much knowledge of each other. From 1950 onwards you get, for contrasting reasons, an absence of American experts in China or of China experts in America. Political harassment in the early McCarthy period drove almost all the China experts out of the State Department into other lines of work, or led to their complete dismissal, and also thinned the academic ranks on China because of the tensions of the profession.

But remember in China they were in the same boat; you could not specifically be one of these returned graduate students with a degree in political science from Columbia or a Ph.D. from there and maybe a Yale B.A., with a father who had been a high ranking officer in the KMT and a sister who had probably married a businessman in Hong Kong or something, and be an acceptable American expert in the Communist foreign trade bureaucracy. It just didn't make any sense. And so such people were by and large removed and a much more

dogmatic younger group took over who had very little knowledge of the country. So that when you finally looked at the leadership of Communist China, of something like the senior hundred and fifty people by the late 1950s, I think only a half dozen had ever been to a non-Communist western country. And of the forty or fifty others who had been to some kind of a foreign country it had always been the Soviet Union or for brief trips to eastern Europe. The only exception throughout was Chou En-lai who had lived extensively in Paris and also had visited England and Germany. But there was nobody else of that caliber in the senior leadership.

IX. Ninth would be how to assess the opening of China, as it was called, in 1971-72, the Kissinger-Nixon policy behind it. The interesting question, depending on how deep you are getting into American politics, is whether any other president could have done it, whether it had to be the most proven anti-Communist politician of the last twenty years, who was able to make such a leap in terms of diplomacy. One can remind students that Nixon was one of the most aggressive members of the HUAC Committee, the House UnAmerican Activities Committee, and made great political capital out of this. So that when he made the switch he was able to answer for a large part of the American constituency, that would indeed have been very angry.

The Chinese caution about the possibilities of this rapprochement, its linkage to big power politics, particularly their problems with the Soviet Union, can at least be discussed, and the Chinese caution can also be contrasted interestingly with the American euphoria. What was it in this relationship and in the dream of China that led to this seemingly immense deal? The fact that almost nothing has happened since is itself intriguing, after the original move through the Shanghai communique the complexities of the relationship have become much more obvious. I think the original, this total euphoria with Communist China for the first few years, maybe '71 to '74 or even '75 of the first groups who went over, student groups, businessmen, academics, religious leaders, and so on, has been replaced by a much more long range sort of potential admiration, something much more complicated, but much of the original fascination with immediate political structures has gone. So this idea of the unrealistic expectations in many ways echoes the old philosophe vision and the nineteenth century businessman's vision, and some of the early missionary euphoria and some of the missionary KMT euphoria.

X. Lastly then, comes trying to link all these to the future. I dwelt more on the past because I think in China particularly you never talk about the future or the present without knowing about the past. It's a country where history does matter. The Communists put all their own documents in historical terms, Mao constantly used historical allusion, Chairman Hua at the moment does the same thing. They study their own history consistently in their own schools, and they are always drawing historical lessons. They are rewriting the books as well in different ways at different times, but nevertheless they talk in analogies. They understand the progress of history in the world in a sort of Hegelian world historical sense. They believe that the long view does matter. They are confident that capitalist society will be overthrown since that has happened to slave society and has happened to feudal society. This is important. Capitalist society is one more variant whose time is coming.

And so the concentration on our position, the American position, in a class historical context as it is understood in China is something I think well worth trying to get across to students today if we can. It's not easy.

In this last area of future problems, trying to hold on to the past as we look at them, there are four obvious sub-units. These would be Taiwan, the problem of what one feels about it, what are the ethics of recognition, who is meant to be represented in this decision, what does a majority mean in such a case -- you can really go on for weeks with good students, exploring all the areas of it. Taiwan, remember, has a whole group of constituencies. It has its own aboriginal population who were dispossessed by the original Chinese settlers, who then were dispossessed by the Japanese, who were then dispossessed by the original settlers again, who were then pushed aside by Chiang Kai-shek and the mainland Chinese.

Secondly, the Soviet Union, an analysis of how it is (or perhaps why it is) that the two strongest forces among the Communist countries should be drawn into such tight hostility to each other; what is the meaning of Socialism in one country to the dream of an international Communist movement, how much is the hostility to the Soviet Union based on the frictions along their border, how much on the tensions between two very different kinds of people? This leads you smack into the greatest of all history questions you can ever ask: can national character totally transcend ideology?

A third is the whole area of nuclear power, how the Chinese choose to come into the nuclear world and how they are allowed to stay in it, what decisions they are going to make about their own energy structure, how they are going to use nuclear power; in fact this backs into Taiwan as well, since Taiwan now has more of its power coming from nuclear sources than any other comparable state.

The fourth area is what I call worldwide ecological concerns. How are the Chinese going to bind into the green revolution, as it's called, or resist or join various international pollution control bodies, how are they going to exploit their own resources, how do they feel about now turning out to have one of the largest oil fields left in the world when also that oil is excessively dirty, quite extraordinarily and expensively dirty with a fantastic sulphur content? What are they doing now that the rest of their major strategic reserves turn out to be near the Soviet Union, since most of their most dramatic discoveries have been made in the totally arid Sinkiang area which was regarded almost as a liability for a century. That's why the Chinese have been resisting joining pollution control and other international agreements of the Helsinki kind. They feel that the poor nations have a right to dirty industry before they catch up and talk clean industry with the powerful nations. I think you can draw a kind of parallel between the Chinese view of their right to actually have a corrosive and filthy industry until they reach a higher level with the kind of argument that suggests that birth control may in fact have genocidal implications. There are very difficult ethical areas here: Who has the right to dictate what to whom across what societal economic lines?

In all these four areas lie what I call the current dimensions of Chinese power, the areas where the new challenges are going to be the strongest.

The Historical Background of the Southern African Crisis

Professor Leonard M. Thompson

Southern Africa, was not very much in the news in this country until very recently. Now, rather suddenly, it has hit the headlines and hence I am drafted to appear before you today. What I propose to do is to make some historical points, about ten in number, bringing Southern Africa through to the present stage, and to leave the question of what the United States should now be doing for interrogation and discussion. I think the best way for me as a historian to put you in the picture is to make these historical points.

First, white settlement began in South Africa -- and white South Africans will be adamant in making this point to you -- at about the same time as white settlement began in what is now the United States, namely, the seventeenth century. And, as in the United States, the white population gradually built up through the seventeenth, eighteenth, nineteenth, and twentieth centuries. So there is a certain analogy in terms of the timing and the process of the development of the white populations in these two areas. However, the size of the white population in Southern Africa is much smaller than that in the United States. White Southern Africans are still under five million people. Also, and this is just as significant, whereas the English language has always been the sole official language of the United States of America, the Republic of South Africa has two official languages, reflecting the persistence of two distinct linguistic and cultural communities in its white population. In this respect, the analogy is more with Canada. During the seventeenth and eighteenth centuries, when the Cape of Good Hope was administered by the Dutch East India Company, the settlers were of north European continental origin -- Dutch, German, and a few French. The descendants of those seventeenth and eighteenth century settlers are the people now known as Afrikaners and it is they who dominate the Republic of South Africa. British settlers began to arrive in the nineteenth century, the area having been conquered from the Dutch at the beginning of that century, but the British settlers have always been fewer than the Afrikaners. And this division persists. There are two official languages, English and Afrikaans, and the main cleavage in white society still is the cleavage between Afrikaners speaking the Afrikaans language, and people of British and Jewish descent speaking the English language. The war of 1899-1902, although it was precipitated by British imperial action, had some of the features of a civil war between these two white communities.

My next point is that whites conquered the indigenous inhabitants of Southern Africa, as did whites conquer the indigenous inhabitants of North America, in the seventeenth, eighteenth, and nineteenth centuries. While your movement rolled westward across North America in Southern Africa the general direction of movement was north and east from Cape Town, at the corner of the continent. As in America, the survivors of the indigenous inhabitants of South Africa were placed on reservations as the process of conquest continued. But in this respect, also, there were very great differences. Firstly, demographic differences. In the United States, of course, the survivors of the indigenous Indian populations have become a small minority. In the Republic of South Africa the descendants of the aboriginal Bantu-speaking Africans are over seventy percent of the population, whites are only seventeen percent of the population, and the other thirteen percent

consist of people of mixed descent, known as Coloured in South Africa. The other difference is that the reservations that the black inhabitants ended up with after the process of conquest was completed constitute one-eighth -- twelve and a half percent -- of the total area of the present Republic of South Africa -- twelve and a half percent of the land for seventy percent of the population. It is true that there are embedded in the Southern African region other territories, Lesotho, Botswana and Swaziland, where much more of the land is in African hands. Nevertheless, in Southern Africa as a whole the process of conquest has resulted in whites forming less than one-tenth of the total population and controlling the bulk of the land, and certainly the land with the most valuable resources.

My next point is that whereas in North America the incorporation of the conquered aboriginal peoples into the economy established by the whites was a slow process, in Southern Africa from the very first, white settlers became dependent on the labor services of indigenous peoples. The corollary was that as blacks lost land they became unable to produce enough food to maintain their customary mode of life, and they were obliged to work for white people and earn wages to buy food and pay taxes. So, in a much more dramatic way than in North America, a conquest led to economic inter-dependence.

Next, a few more remarks about the economy. Until just over a century ago, Southern Africa was an economic backwater. There were no significant resources, as viewed from London or Paris, or New York for that matter. A low level farming economy was practiced by whites as well as by the indigenous peoples. Then, with the dramatic discovery of diamonds and gold, Southern Africa started a century of almost continuous economic growth. Today the Republic of South Africa has a powerful industrial economy. The country contains nearly every significant resource required for modern industry and several resources of exceptional value, notably gold and uranium. South Africa accounts for well over half the world's annual production of gold, and contains about a fifth of the western world's reserves of uranium. However, South Africa produces no natural oil, and this is the potential Achilles Heel in the economy. But it is a very powerful modern economy by any standards. Its structure is a consequence of conquest and incorporation of the indigenous people; that is to say, white people control the economy and perform the skilled work, and black people are the unskilled and semi-skilled workers. A very high proportion of the blacks are migrant workers -- people whose lives are spent shuttling between their reservations and the industrial areas, earning wages, sending back a little maybe to their families, and then after a year or so, returning home, only to come back again for another spell of wage labor after a few months. So you have this extraordinary spectacle of large-scale migrancy within a country. And migrancy is linked with exceptional stratification in the industrial setting: not only are virtually all the skilled jobs held by whites and virtually all the unskilled jobs by blacks, but there is an exceptional gap between the wages for skilled labor and for unskilled labor. In the mining industry it is still about ten to one -- a remarkable differential. Thus, race and class are intertwined in a modern industrial economy.

The political and constitutional situation in South Africa is quite different from what Americans have grown up with. This point needs to be given some emphasis. In 1910 what had been four separate British colonies united to form the Union of South Africa. For half a century, it had the status of a member of the British Commonwealth, like Canada, Australia and New Zealand, but in 1961 it became the Republic of South Africa and left the

Commonwealth. Its constitution is modeled on the British system of parliamentary supremacy. There is no division of powers at the center between a legislative, an executive, and a judicial branch. The cabinet, the executive branch of government, is composed of the leaders of the party that has won a majority of the seats in the legislature in a general election. Thus the legislature controls the executive branch. Furthermore, there is virtually no judicial review; the courts are dependent on the executive and the legislature. Nor is there any division of powers between the center and the parts. Thus, all power is concentrated in the center, and at the center in the parliament and cabinet. So in a general election in South Africa, the winner takes all. It is not a question of a balance of powers between the branches of the central government, and between a Federal government and State governments. A parliamentary majority in South Africa may pass a law on any subject, regardless of any other interests, regardless of any other forces, and that law will be valid and will be enforced by the courts and the police. The people who can vote in parliamentary elections in South Africa have always been nearly exclusively white and now nobody may vote who is not officially classified as a white person. It means that seventeen percent of the population control the political system; and, since the major cleavage among the whites is between an Afrikaner majority and a minority of British descent, so long as the white political parties are organized on ethnic lines, it means that the whole system is dominated by an Afrikaner party. This is the case. Since the National Party came into power in 1948 it has never looked like losing an election. It is essentially an Afrikaner nationalist party.

Against this demographic, economic and political background, let us now look at trends in policy-making. Here again I invite you to think of the American comparison because one's own experience helps one to understand what has been happening in South Africa. Until the end of World War II there was nothing very unusual in the structure of South African society. The United States was still in the Jim Crow era. For nearly all of Africa, much of Asia, and most of the Caribbean it was still the colonial era. Structural racism pervaded much of the world. In that era, the white government of South Africa had a policy that it called segregation. It was not applied very rigidly, and there were regional variations. For example, in Cape Town there was a relatively relaxed relationship between peoples of different ethnic, racial and linguistic backgrounds. There was a considerable amount of social mixing in Cape Town. There was virtually none when you got right into the interior, to places like Johannesburg, Pretoria, and Bloemfontein. Also, there were loopholes in the system, practices that were inconsistent with segregation dogma. For example, black men elected a few white people to represent them in parliament. That's not saying much, but it was seen by some as a starting point for the building up of effective black participation in the constitutional process. It was step one -- not a very long step, but a departure from a rigidly consistent system of absolute white domination. Through the Second World War, therefore, South Africa did not seem to be a very different sort of place from the southern United States.

Since then, however, there has been a progressive and cumulatively a very radical parting of the ways between the structure of society in South Africa and in the rest of the world, and certainly in the direction of policy and the professed ideals and norms in South Africa and in the rest of the world, including this country. Here in the United States there has been a trend toward desegregation. Many would say it has not gone far enough, but few would deny that great changes have taken place. In tropical Africa and Asia decolonization is nearly complete. In Southern Africa, and Southern

Africa alone, change has been in the opposite direction: a tightening of the system of segregation. Indeed, the best book written by a sociologist on modern South Africa has the title Modernizing Racial Domination, which sums up the process. Everyone in South Africa is now classified by race -- White, Coloured, Asian, or African. If one is African one is also classified by "tribe," a term I don't like but nevertheless it is used. So every South African has a document indicating who he or she is in ethnic terms; and who he or she is in ethnic terms determines a person's life opportunities to an inordinate extent. One may only marry within one's own racial group as defined by the government. Sexual relations between whites and others are unlawful. There is no longer any black participation of any sort, even indirect, in the election of the parliament which, as I have explained, is legally all-powerful; the few elements of black participation have been removed. There is compulsory racial segregation in terms of where one may live, where one may be educated, and with whom one may form political or industrial associations, and this system is very rigidly applied. For example, there is an act which has been enforced quite ruthlessly over the years called the Group Areas Act, which Alan Paton once criticized in moving terms. This is the Act that determines where one lives. Under it, the police have moved thousands of people from the places where they were born, and in some cases where their ancestors lived for many generations, because the government proclaimed they were white areas.

The word apartheid has become well known, indeed notorious throughout the world. The National Party coined it shortly before it came into power in 1948. Apartheid means separateness. The positive aspect of the policy concerns the reservations. These territories, amounting to twelve and a half percent of the area of South Africa, consist of over eighty separate blocks of land. The government regards them as forming "Homelands" for ten different African "tribes" or "nations". It has created political institutions in the Homelands and it encourages their governments to advance to independence. In terms of South African law, the first Homeland became formally independent last year. This is the "Transkei." No other country in the world has recognized the Transkei as an independent state, and the reason is this. Independence sounds fine, but under South African law a black person may exercise political rights only in his Homeland, and not in the rest of the country where virtually all the resources are and virtually all the wealth is produced. That is the catch in the formula. African political rights, and everything that flows from the exercise of political rights, are deemed legitimately to exist only in the Homelands; in the remaining eighty-seven and a half percent of the country Africans are deemed to be temporary visitors and therefore not entitled to any political rights at all. The Coloured and Indian people do not have reservations, so that the government finds it difficult to apply apartheid theory to them. But the government has created councils elected by Indians on the one hand and Coloured people on the other, and given them limited, delegated powers, which the government can override if it wishes.

The South African government is quite ruthless in suppressing opposition. The police and the bureaucracy efficiently administer a host of coercive laws. Moreover, if only for economic reasons, an African is very hard pressed to attempt to contest the system, because if he does so he loses his job and is sent to his Homeland. You see, therefore, that whereas South Africa was not a particularly unusual country until after the Second World War, it, and its client states Rhodesia (or Zimbabwe) and South West Africa (or Namibia), have now become unique. The last survivors of the

racist world order, they are anachronisms in 1977.

During the twentieth century many Africans have contrived to become permanent residents of the industrial areas. The most conspicuous example of this is Soweto, the big black township just outside Johannesburg, with a million people or more -- there is no accurate count available. Soweto houses the main black service community for the white people of Johannesburg. A black American Yale undergraduate went there last year and confirms what I have heard from others who have been able to get inside the Soweto community. Their culture is very like the culture of Harlem in New York and analogous communities elsewhere in the United States: an ebullient proletarian culture. White South Africans are almost completely unaware of the creative vigor among the subordinated peoples; an ignorance which is typical of ruling classes in sharply stratified societies. The most industrialized, in most respects the most modern black people in all the African continent are those in the Republic of South Africa, and yet they are the one black population in the continent who do not have any effective political power. That is an extraordinary irony.

In the last few years a strong sense of black consciousness has developed in the minds of the subject peoples of South Africa. In the late 1950s the government created five racially and ethnically segregated colleges for African, Coloured and Asian students, hoping to use them as instruments of ideological control. However, the black consciousness movement took root in these colleges and it has now penetrated widely throughout the school system.

A phase of overt black resistance was broken by the police in the mid-1960s, but since 1972 there has been opposition, starting with strikes up and down the country. This has been a considerable achievement, since in nearly every case it is unlawful for Africans to strike. Then in 1976 there were widespread riots, starting in Soweto. Moreover, in the last couple of years black power has come right to the borders of the Republic of South Africa. Previously Angola, Mozambique and Rhodesia formed a buffer between black-controlled Africa and the Republic of South Africa, and the Republic was able to prevent the three weak black states south of that line (Botswana, Lesotho and Swaziland) from becoming a threat. But with the independence of Angola and Mozambique and the development of guerrilla warfare in Rhodesia, the challenge to white power has reached the borders of the country. In Rhodesia, the white regime looks as though it can't hold out much longer; that country is likely to become transformed into a black-controlled Zimbabwe. Likewise, South West Africa is likely soon to be transformed into a black-controlled Namibia -- the name that the United Nations has applied to it for a long while now.

You will recall that during the last couple of years it was Cuban troops who determined in large measure the outcome of the civil war in Angola, and more recently no less a person than the President of the Soviet Union has visited South Africa's neighbors. There are various ways of interpreting the buildup of the power and interest of the Soviet Union and Cuba in Southern Africa. I shall be interested to hear your judgment on this. The South African government says, "This is what we have been telling you all the time. We are the main bastion against Communism in the African continent, and you should realize that it is in your interest to support us." The other point of view is that it is the racism and cruelty practiced day by day by the white regimes that have created such easy openings for the Soviet Union to exploit in Southern Africa.

What, finally, are the prospects? I am afraid that the longer the time that elapses without blacks being admitted to an effective share of power in South Africa, the greater the likelihood that the transition will ultimately be violent, and the successor government radically anti-western. The longer change is delayed, the more violent the change will be and the more radical the outcome. Angola and Mozambique may be regarded as precedents. That's precisely what is happening there as a result of Portuguese intransigence in the past. There is also a danger of an international conflict emerging out of a conflagration within Southern Africa. Great Powers may become involved, and if that were to happen there would be grievous risks of a disruptive internal division in the United States, sparked off by the racial factor that is the essence of the Southern African problem. Unless we are careful, we could be back to the horrors created in this country by the Vietnam war.

In my judgment, until the last few months of his tenure Secretary of State Kissinger was on the wrong track in Africa. He began to move in an appropriate direction at the very end, but too late to carry conviction to black Africans. I think that the Carter administration has got off to a good start, at least symbolically, and symbols are very important, and it has a better chance than its predecessor of making a significant contribution to the solution of these incredibly complex problems.

Problems of American-Soviet Relations

Dr. Firuz Kazemzadeh

Thank you for your introduction. When I was preparing the outline for this talk I kept debating with myself what I should do. The title was elastic, and elastic titles are, of course, the best titles; but how does one fill the body of the talk to make it correspond to the title, and at the same time avoid regurgitation of all too familiar themes? I finally decided that I would select a few problems not in day-to-day diplomacy between America and the Soviet Union, but in perception and understanding.

The first thing that struck me in my studies of relations between the Soviet Union and the United States was the swinging pendulum of opinion and attitude. These swings, sometimes relatively minor and at other times of tremendous amplitude, to some extent determine the course of policy and usually determine it in the wrong way. Let me illustrate the point.

When the Bolshevik Revolution broke out in the fall of 1917, Wilson's first impulse was to welcome it until he was given the idea that the Bolsheviks were going to make a separate peace with Germany, and since the war against Germany was the principal preoccupation of everybody in England and France and the United States, the Bolsheviks were perceived immediately as the allies of Kaiser Germany, as a threat. Within just a few months the attitude toward them changed from a traditional American welcoming of revolutions to a fear that this particular revolution might work to the benefit of the Hun, to the benefit of the Kaiser.

Then the swing away from the welcoming of the revolution went further, and in the twenties this country went through what became known as the Red Scare. A concomitant was non-recognition of Russia, until Roosevelt was elected. One of the things that he want to accomplish, of course, was to normalize relations with Russia, and so the pendulum began to swing again, until the outbreak of the Second World War, or rather until the attack of Germany on the Soviet Union and also of Japan on the United States made the Soviet Union and the United States reluctant allies.

However, it seems that the psyche of the American people cannot stand half measures. It has to see things in almost Zoroastrian terms. The struggle of Ahura Mazda against Ahriman -- God against the devil. And so if the Russians are our allies and the enemies of Hitler, obviously they must be angelic because the enemy is devilish. Having arrived in the United States during the war, I was very much surprised to see otherwise well informed people talk about the proponents of democracy, the defenders of human rights, the United States, Great Britain, and the Soviet Union. That sounded very peculiar to somebody who grew up during the Stalinist terror, but apparently it was impossible in the United States to think of the Soviets as incidental allies who were on our side because Hitler forced them to be on our side.

The pendulum swung again in favor of the Soviet Union to the extent that Stalin was represented as a benign presence, his pipe clenched in his teeth.

There were movies -- for instance, I remember two, one called "The Song of Russia." I sat in the movie stupefied by that presentation. Or another one, "Mission to Moscow," which was based on a novel -- excuse me, on a book by John Davies, American Ambassador in Russia; if I called it a novel I did it because it is nothing but fiction, a book that really has no relation to any reality that ever existed in the Soviet Union.

There were other episodes which sounded very strange to me at the time. Again at the risk of being too personal, let me give you an example of how opinion changed perception. I was a freshman at Stanford University. I sat one day in the dormitory reading a newspaper. It was the San Francisco Chronicle. In it they were publishing daily travel notes of the then vice president of the United States, Henry Wallace. He reported that he was traveling through Siberia where his host was a kindly gentleman by the name of Goglidze. This gentleman, the vice president said, was apparently in charge of philanthropic organizations, creches, kindergartens, construction of schools. And he then proceeded to tell how this Mr. Goglidze showed him around and how he was impressed with all the progress that was being made. I couldn't believe my eyes. Everybody in the Soviet Union knew that Goglidze was the director of the GULAG, of the central administration of concentration camps. The question which I asked myself was, how is it possible that a freshman at Stanford who spent some years in Russia knew this, and those who were supposed to brief the vice president of the United States before he went to the Soviet Union didn't?

Well, the question has never been answered to my satisfaction. It was to a large extent this rather naive view that somehow being comrades in arms against Hitler had resolved all the problems and the conflicts between the United States and the Soviet Union that was responsible for the shock of the onset of the Cold War. If American attitude had been realistic, or if you wish cynical, the leaders of opinion in the United States would have said to themselves, "in the realm of international relations there is no law and anarchy prevails, (the kind of thing described by Hobbes' war of all against all) alliances are momentary, they shift and change. Today you are with this fellow against the other, tomorrow things turn around." Then the Cold War itself would not have been such a traumatic experience. But this was not the case.

Ideas were spread and embedded into the consciousness of the people, that somehow a perfect universe was going to arrive after the termination of the war; and when, instead, the conflict erupted, the measure of American reaction to the Soviet Union was perhaps much greater than the facts warranted. Again let me illustrate.

The Soviet Union in 1945 was a weak nation, and so it was in '46 and '47. But it made threatening gestures. It engaged in activities that appeared quite dangerous and sometimes were. Without analyzing the actual capacities of the Soviet Union, without paying too much attention to the fact that the United States at the time had a monopoly of power, America once again elevated the conflict into a metaphysical struggle between good and evil, and got caught in precisely the same kind of political-psychological trap from which it was just emerging at the end of the war.

How does one explain this? I will not presume, after my friend Sydney Ahlstrom spoke here a minute ago, to analyze the American national character, to delve into

the Puritan mentality. It's not for me. But there are some things that perhaps I could say about the reasons for the persistent misunderstanding of what Russia stood for, what she was about, and how she should be handled.

First of all, I have felt for a long time, and I feel now also, that the U.S. policies toward the Soviet Union and the U.S. opinions about the U.S.S.R. are frequently considered without regard to Russia's nature. In other words, we project on an imaginary screen images generated in our own minds and hearts, then we think this is the Soviet Union and we try to fashion our attitudes and policies on the basis of that reality rather than the reality of Russia itself.

This in turn is a result of a very deep ignorance of what the Soviet Union really is. Here again I could give you some examples. In recent years, as a result of revulsion against the Vietnam war, a revulsion which in many ways is quite justified, a new school of historians appeared on the scene. They are known as revisionists. Revisionist historians devote considerable amount of space in their books to Soviet-American relations and inevitably whatever the United States has done comes out bad, and then by the inner logic of the situation, what the Soviet Union has done must be good. I am very much impressed by the fact that of all the revisionist historians that I know, perhaps only one can read Russian. Now, this is not a joking matter. What would you think of one who wrote a book about Anglo-French relations in the period of the American Revolution and the emergence of the American Republic, the emergence which depended very largely on the position that France took vis-a-vis British colonies, and discovered that the man could only read English and Navajo? Well, his credibility would diminish. I realize that Russian seems to be just as difficult as Cambodian or Pashto, but still people who devote years of research to problems of America's relations with the other major military power in the world today ought to know something more about the Soviet Union than what they read in standard textbooks. Yet knowledge of the Soviet Union is frequently lacking in revisionist circles.

Not knowing the Soviet Union, leads to very peculiar errors. For instance, during the Second World War Roosevelt went around assuring everybody that he could handle Stalin. Analyze that for just a second. What does that imply. It implies that Stalin is Jim Farley, or that Stalin is the Republican boss of Kansas City. And somehow, Tammany Hall, Democratic politics of New York, all of this has equipped the president to handle Stalin. But Stalin comes, as the Russians themselves say, from another opera. The whole frame of reference is different. You don't "handle" Stalin.

And so Roosevelt, meeting with Stalin, was really dealing blindfolded. He did not understand the elements of the equation. He didn't really know what he was after. And what happens? Roosevelt goes to Yalta, and while possessing a virtual monopoly of power at the end of the war, a monopoly which had never existed before in the history of the world, he makes concessions to the Soviets, not even knowing that he is making concessions. I am not saying one should not make concessions, but if you are going to make concessions, do favors, you should receive something in return, at least a measure of gratitude if nothing else, or at least you should be aware that you are making concessions. But here the United States Government was making concessions and was not really aware that it was making concessions to the Soviet

Union, establishing unfavorable borders in central Europe, saying that we had no choice, that nothing else could be done. Well, this is something with which I cannot agree because I feel that there were many, many choices open to the United States.

And there is mounting evidence from the other side that the Soviet government could not believe its eyes! The war was coming to an end, Russia was devastated, Russia had bled badly, had lost perhaps twenty to twenty-five million people in that war, needed time to reconstruct herself, and yet she was in a position to be aggressive, to make excessive demands, to move into new areas which had never been within her purview at all, and the United States found itself on the defensive, giving up positions and getting terribly scared.

The next stage was the Cold War, where once again there was a total reaction. I don't want to say it was a totalitarian reaction, but it was a total reaction. All of a sudden distinctions had to be obliterated. Russia, Communism, China, all of these became a single enemy that had to be combatted, had to be fought at any price, anywhere. The lines had to be drawn so rigidly that whether it was some local affair in Vietnam or whether it was Berlin, it all didn't matter any longer. The important thing was that one had to stand like a rock against some metaphysical threat called Communism. Not a very thoughtful way to deal with foreign relations.

The idea that international communism was a monlith was only half true, but something which is half true is also half false. The distinctions between Russia, communism, et cetera, were obliterated even in the face of indications that the Soviet system or the communist world were not monolithic which, of course, had become clear as early as 1948. It was then that Tito defected, and if Tito, who was the child of the Comintern, who had lived in the Hotel Lux in Moscow in the 1930s, who had been involved in the Spanish civil war, who had been nursed at the breast of Stalin, so to speak -- what a horrible image (laughter) -- if Tito could defect, why couldn't somebody else defect?

The other terrible mistake was about China. That mistake was compounded of many elements. Some of you who are old enough, and others who have been reading about it, may remember the sentence, "We lost China." In the first place, did we own it to lose it? Was it ours to lose? In the second place there was an implication, that if we lost China then the Soviet Union found China and presumably put China into its pocket. How do you put a nation of six hundred million people into your pocket? You can occupy Bulgaria, you can rule East Germany, but what do you do with China? Moreover, when you have not even introduced troops into China, how is China a Russian satellite? You know, the terminology is funny. When China becomes Russia's satellite what happens? Even astronomically it's impossible to conceive. It's an image like Tito being nursed at the breast of Stalin, China being Russia's satellite!

I'm not saying that there was no relationship between these two, that they were not allies, that they were not cooperating, that their union or alliance could not represent a threat to the United States. But that's not the way it was represented. It was represented to the public and -- I'm not accusing the leadership in the United States of fooling the public, they themselves perceived it this way -- that somehow

China was now part of Russia's arsenal, increasing tenfold the power of the Soviet Union and weakening the position of the United States.

These are some typical mistakes, and one could continue this list, but I would like now to move to another area and perhaps closer to the present. Certain mistakes of policy have been recognized, people have seen that indeed Tito had really defected from the Soviet Union, that the communist world was not monolithic, that China was not Russia's satellite but in fact today Russia's greatest headache and greatest threat, that the Soviet Union keeps more troops along the borders of China, and those borders are about two thousand miles long. All of these things have been recognized and, the pendulum swings. The public thinks, well, Russia presents no danger. Perhaps we should make more concessions? Perhaps we should unilaterally give to Russia this, that, and the other thing. This is dangerous because it is not realistic, and I would like to suggest certain presuppositions about Soviet foreign policy, certain constants.

First of all, I feel that Soviet policy, Soviet foreign policy, can be conceived as analagous to the view that the early Moslems held of the world. Seventh and eighth century Islan divided the world into two segments. One was called Daru'l Islam, the abode of Islam, and the other was called Daru'l Harb, the abode of war. Whatever was not within the limits of the Moslem community was in the area where warfare was conducted. In Soviet theory whatever is not within the circle of communism is that other part of the world; it is the world or the abode of war. You don't have to fight actual wars there, but the attitude is set by this belief.

Conflict is inevitable the Soviets believe. Conflict inheres in the nature of things, not only between societies but within society as well. Within societies, what is the motor of history? It is class conflict, and class conflict is violent. Lenin said, repeating Engels and Marx, that no class (and this could be generalized to say no group of people) has ever surrendered its power without being compelled to do so by force. Therefore, all social issues are ultimately resolved by preponderance of force on one side or the other. And if you don't want to fight wars but want to win, the only thing you can do is to accumulate such a preponderance of force on your side that the other side will give in without fighting. Then you can have a peaceful society. Still the determinant is not good will, it is not voting, it is not rational discourse, it is the presence of overwhelming force.

If military conflict is inconceivable, if in view of developments in modern technology it is no longer possible to risk an outright war, a nuclear war, then that conflict must continue in all the other possible forms in order to achieve the same end. This is not something that the Soviets conceal. This is stated every day in the Soviet newspapers. They say, co-existence, yes, but co-existence only means the continuation of the conflict by other means, through economic struggle and especially, they emphasize, that there can be absolutely no compromise on the ideological front. The struggle must go on. One system or another must win.

I think that from the point of view of United States policy that isn't so bad. If Americans don't have enough faith in their system to believe that they cannot win in a non-military ideological struggle, then they deserve to lose. Right?

If they are confident that they cannot be defeated in ideological or economic struggles, then they can take heart and proceed to conduct the kind of policies which would assure their victory without violence and recourse to atomic wars. This makes me optimistic. Up until this point I may have sounded to you as one of the prophets of doom. But, given this new element, and by the way we owe this sort of analysis to the late Mr. Krushchev who dared to modify theory. He acknowledged that a total military confrontation with an atomic war was inconceivable and therefore all the discussions from now on have to be either about mutual annihilation or about the struggle and conflict within the framework inscribed for us by the dread of atomic weapons, and therefore in essence all conflict now is peaceful conflict. It may not be peaceful in the sense that there can be small wars, there can be trouble in Africa, there can be something happening in the Middle East, but still the ultimate weapon will not be utilized. This is precisely what co-existence means in Soviet parlance.

If that is true, all agreements, all understandings with the Soviet Union are of a tactical nature. They are to be entered into, kept, or violated depending on whether they contribute to the ultimate victory of one side or the other. They are to be kept if they are profitable, and what is profit? Profitable is that which in the long run leads to the victory of my side over your side. There is no other calculus.

In recent years, Soviet theory of foreign relations has sustained some very damaging blows, and it is possible that revisionism, of which China accuses the Soviet Union, will indeed work its acid influence on Soviet thought. Nothing in the world is changeless. The great blows that have been inflicted on Soviet theory of foreign policy were inflicted by Tito and by China. When Marxian analysis assumed that conflict was the result of the existence of private property, it was all very easy. In order to create a peaceful world you had to abolish private property, and just as abolition of private property in land and means of production eliminates class struggle and therefore all violence within a society, so the elimination of private property in land and means of production in all the countries of the world eliminates the possibility of conflict between nations. It was a marvelous dream. It was profitable for the Soviet Union and it was good for humanity to foment revolutions everywhere, because once France, Germany, Great Britain, Japan, and most of all the United States, become communist nations without private property in land and means of production, there would be no possibility of fighting wars, since all wars, as Lenin explained were the product of conflicting capitalist interests which reflect private property.

Well, there came Tito and there came the Chinese, and look at the terrible dilemma that both the Soviets and the Chinese face. If the Soviets and the Chinese have a conflict, then by definition one of them has not abolished private property. One or the other of these two must be a capitalist society. The Chinese have had the virtue of consistency. They have come out and said that under Krushchev the Soviet Union had secretly restored capitalism. You may not have heard about this, and I am not aware of it either, but apparently capitalism has been restored in the Soviet Union. Otherwise how can the Soviet Union be so beastly to China? The Soviets have never come out and said that China has restored capitalism. They have circumvented the theoretical question by blaming sinister individuals' momentary deviation which, of course, from the point of view of Marxist philosophy is arrant nonsense. But it is very difficult any longer to believe that a simple solution to international problems lies in the multiplication of Soviet type societies.

What is going to happen to the Soviet Union, the Soviet leaders must now think, if Italy goes communist, and then France goes communist? Somebody has said that the greatest dread in the Kremlin is that all of Germany would go communist.

In other words, the Soviet bloc not only is not monolithic, the Soviet Union not only has a problem with China or with Yugoslavia, but within the Soviet Union itself there is no longer a certainty as to whether the theory holds, and more and more Soviet policy becomes a policy of nationalistic improvisation. That in some ways is bad, especially if you are inclined to be idealistic. In some ways it is good, because the policy of nationalistic improvisation allows mutual accomodation. It allows bribery and dirty deals which in the state of international anarchy is the best you can get in order to avoid going to war.

And so I do not see the next, let us say, ten or fifteen years of relations between the United States and the Soviet Union as dominated by the same kind of raw and frightful metaphysical struggle between good and evil, but rather now a much more mundane political struggle over little advantages here and there, pinpricks, mutual insults, little retreats, little advances. All of them calculated to increase advantages but not to push so far as to provoke a great conflict.

If this analysis has any value, one will have to look at the specific areas of conflict, and these of course are obvious. The Middle East, where by the way the Soviet Union has suffered some very serious reverses. One of the most serious reverses of all, of course, was suffered not in Egypt but in Syria and with the Palestinians, where the Soviet Union armed Syria in order to promote the Palestinian cause, and the Syrians took those arms and smashed the Palestinians. The Palestinians were smashed by the Syrians with Soviet arms and by the Lebanese Christians armed by Israel with American arms. It's absolutely incredible. Twenty years ago who could have guessed that a thing like this could possibly happen. But the Soviet Union today does not have its foot firmly in the Middle East the way it did only ten years ago.

Other areas, Africa -- and here is something which is entirely unpredictable, because the American press has the habit of putting tags on things. For instance, the Lebanese Christians are called Rightists. I cannot understand why they happen to be Rightists. Street sweepers, shopkeepers, hewers of rocks, are all Rightists if they are Christians. If they happen to be Moslems they can be like Kamal Jumblat, the Druze leader. They can be feudal lords, living in castles on top of mountains. They are still Lebanese Leftists. A kind of magic operates there that is beyond my understanding. Never mind. As for Africa, the situation is even more confusing. Maurice Tshombe's right wing Katanga gendarmes, with the help of Cubans, are invading... well, you know the story. It is again beyond comprehension.

There is no doubt in my mind that the Soviet Union will be very happy to intrude, but I have very grave doubts first of all that it will get very far in a context such as this, and, second, that it is particularly dangerous to the United States.

Since my time is almost over and since usually the speaker is asked for his prescription, I have the last item on my outline entitled "What is to be done," the title of a famous book by Chernyshevskii, a Russian radical thinker of the nineteenth century, and of one by Lenin. So, what is to be done? We must recognize first of all the reality of a protracted conflict, somehow we must -- and this has been said so many times before -- somehow we must get over the American desire of settling a thing, in a clean fight, man to man. There is no settling of this dispute. It just has to peter out. It may take a century, and it may take two. Again, the comparison between the clash of Christianity and Islam may be instructive. Today nobody seems to be frightened in the Moslem countries of Crusaders appearing again. Nor does Europe seem to be afraid that the Sarasen will be upon it. The issue just went away.

With the Soviet Union also one just has to wait. And it is going to be a very long wait, and the question is, are the Americans prepared for that kind of effort for an indefinite prolongation in our lifetime and perhaps in the lifetime of our children and grandchildren, of a world not bi-polar any longer, but still a world where tensions exist and determine our lives?

I posit then that the U.S.S.R. will continue to strive for preponderance of power, but it will not be a simple military confrontation. The United States first of all must not do certain things. It must not drop its guard, it must not make unilateral concessions, it must not permit Russia to choose the weapons and the time of dueling, it must not assume impossible burdens and get itself involved in all kinds of conflicts for the successful conclusion of which it has neither will nor resources. It must not assume that every non-communist regime deserves support and every communist regime is a threat to its existence. And it also must not forget, which sometimes has been done in the past, that means are not entirely separable from ends. This is a kind of a negative catechism if you wish.

But then there are certain positive things that the United States must do if it is to engage in the conflict. First of all it must be prepared for the swings of the pendulum and not go with these swings, not be completely hopeful one moment that all the problems of mankind are going to be resolved, and in the next moment fall into the deepest and darkest pessimism in which one reaches for the atom bomb to relieve ones tension. "If we cannot come to agreement in the month of June, let's fight." That has to be avoided at all costs. The United States must be willing to make minor accommodations, lessen tensions here and there, without giving in on principles. The United States must foster a kind of international order in which the Soviet Union would become so enmeshed in the web of interdependence that it will be more and more weakening or unprofitable for the Soviet Union to initiate dangerous or violent action. Finally, and this is perhaps the most important, the strength of America ultimately must depend on the strength of its home front, on the demonstration of America's own capacity to solve the gravest problems that confront an industrial civilization in the twentieth century -- energy, ecology, distribution of wealth, education, racial and ethnic tolerance, defense of human rights, these things, if they are taken care of at home, will provide the strength that would make it possible to wage the neither peace nor war conflict with the Soviet Union, if need be, for two hundred years and still come out all right. A collapse on the home front could mean a victory for the Soviet Union.